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1. Introduction

Almost twenty years has passed since the 1997 Asian financial crisis which, for a short and devastating period, suddenly threw the East Asian economies into a financial and economic turmoil. The economies of the countries most affected have shrunk “by an average of 7.7 percent and many millions of people have lost their jobs” (Carney, 2009, p.3). The magnitude of the financial crisis was extensive as the contagion was able to reach Latin America and Russia and raised worldwide concerns for the state of the international financial architecture itself (Carney, 2009, p.3). Yet at the same time the crisis was short-lived as after two years the countries started to quickly regain their positions.

At the very first glance the crisis follows a somewhat straightforward sequence of events; starting early July in Thailand after the Thai baht was allowed to float as a result of speculative attacks. The crisis quickly spread to Indonesia, the Philippines, Malaysia and eventually South Korea (Jomo, 2007, p.15). A financial contagion swept through the region starting with a currency and bank crisis and followed by a swift transformation into a real recession as financial intermediaries and couldn’t get roll-overs on loans from international lenders while companies were often unable to pay debts under the crisis fuelled high-interest rates (Carney, 2009, p.15).

The Asian financial crisis is a prominent case in the economic history of both East Asia and the world. The coming together of so many different elements; both international such as the IMF and international investors, and local such as the intermediary banks and local investors, while taking place in the counties earlier hailed as economic wonders have provided us with a rich case for economic debate and insight. On the other hand, the countless intervening factors that have contributed to the financial crisis such as the timely recent financial liberalisations in the affected states, and the often heard accusations of crony capitalism, have also complicated the nature of events. The timing is both a blessing and a complication as it has given grounds for often opposing and sometimes contradictory explanations.

South Korea is an interesting case because it was considered as a country ahead of the other affected countries and generally emerging markets in addition to being one of the Asian Tigers. South Korea is still analysed as a model for developed after the crisis. (Lee, Laplaca and Rassekh, 2008) For these reasons, and the unexpected manner in which the crisis has reached Korea makes it a very unique case. This thesis focuses specifically on the case study of South Korea during the 1997 financial crisis in addition to the general interpretations analysis.

For these very reasons; much has been written about the financial crisis extensively. Each expert often focusing on particular set of features and approaches. Yet at the same time experts agree that a consensus for the definite cause of the crisis is lacking (Carney, 2009, p.67). Both financial experts and academia were quick to analyse and assign faults to various parties during the crisis and continue to do so as time goes by and previous conclusions often change.

The crisis has come right after a period of impactful liberalisation waves throughout most of the region which resulted in extensive overhauls of their financial systems. During the crisis the state of the East Asian financial framework has been in its very infancy and many lessons have been derived from the event that in turn influenced the financial development of the region towards the progressive direction. At the same time, the relative-short duration of the crisis and the complexity of have overshadowed other lessons or the importance of certain economical developments.
By conducting this research we will be able to better assign values to different interpretations of the crisis, which will let us focus on the more important contributing factors. As a result of this study and similar approaches we are able to see which elements of the financial system are dangerous or require care, preparation and policy. By trying to untangle a mesh of so many different causes we could derive insight for other emerging markets going through similar economic developments or possessing similar vulnerabilities.

1.1. Research Question

It is the aim of this master thesis to provide a holistic overview of the literature concerning itself with the causes of the 1997 Asian financial crisis and identify the most important ones in the eyes of the cumulative intellectuals. This leads us to the first research question of the thesis which can be formulated as:

1. According to the economic research and literature concerning itself with the causes of the Asian financial crisis; what is their ranking in the order of importance.

This will be followed by research focusing on a specific country case - South Korea; using the earlier approach leading us to the second research question.

2. According to the economic research and literature on the causes of the Asian financial crisis in South Korea; what is their ranking in the order of importance.

Having created the benchmark from research for the first question and later conducted much more focused analysis in the second section we are able to look for discrepancies between the rankings and their possible causes.

3. How do the ranking of causes for the Asian Financial crisis for South Korea differ from the ones for the entire East Asian region and what are the possible reasons for this, all based on economic literature.

1.2. Outline of the Paper

2. Theory and Methodology

2.1 Research Method and Approach

This study is conducted in the form of a systematic review with elements of meta-analysis. These approaches have been extremely effective in the health research faculties as they deal with large quantitative data pools and are able to synthesise information. (Petticrew and Roberts, 2006) This study also focuses on a large body of research; yet from various experts who often disagree with the relevance or importance of contributing factors, even taking contradictory stances and approaches. Further this study is conducted in a social sciences field and uses a qualitative approach. Thus, the classical systematic review will have to be adapted accordingly. The research will utilises some experimental citation analysis systems (Research Papers in Economics - discussed later) which will have to be supplemented with additional data gathered from a combination of qualitative analysis.
supported by citation analysis such as Thompson Reuters’s Web of Science, Google Scholar, CitEd and Citeseerx.

In order to create the first ranking; the major experts will have to be identified which will be done through a combination of citation impact and their contribution to the discourse as seen through the other authors. The major papers from those experts will be qualitatively analysed in order to extract causes of the financial crisis in the order of importance according to the author. The authors backed with better citation (quantity and quality) numbers will receive the higher rankings.

For the general accounts of the 1997 East Asian financial crisis the each author takes a unique scope when it comes to choosing which countries they analyse. This will be left to each expert to decide and papers will not be segregated based on this criteria (except for the case of South Korea). For the factual exposition this paper ends up focusing on Thailand, Indonesia Malaysia, the Philippines and South Korea since this includes all the countries most affected by the crisis. The second reason is that this grouping is commonly found in the literature and dubbed by experts as the ‘Asian-5’, examples of experts who used this grouping Radelet and Sachs, and Chang and Velasco. (Radelet and Sachs, 1998a,p.9; see also Chang and Velasco, 1998,p.13).

The scope in terms of publishing years has been narrowed down to 1997 to 2007. This was chosen to give published works adequate amount of time to fairly gather enough citation results, while giving them enough time after the crisis to re-assess and re-evaluate their views.

2.1.1. Research Papers in Economic (RePEc)

The primary source and metric for both eliminating the papers and giving them ranking values will be based on the Research Papers in Economics (also known as RePEc).¹ For papers to be eligible through RePEc selection at least one of the authors must fall within the top ten percent economists according to RePEc.

The RePEc is an extensive de-centralised bibliographic service. The contributors to the system are immense including “almost 1500 archives […] contributing metadata to RePEc, thus covering: 3400+ series with 460,000 working papers, 1500 journals with 720,000 articles, 15,500 book chapters, 12,000 books, and 2,700 software components, for a total of over 1,200,000 items. Almost 1,100,000 of them are available for download in full text”. (Zimmermann, 2012) These numbers being recorded several years ago should suggest an even greater coverage of the service. It has to also be noted that these services are made available and utilised by Google Scholar. The main source for the computation of rankings are citation numbers. The method relies on the CitEc project which is currently managed by José Manuel Barrueco Cruz, a librarian at the University of Valencia. CitEc runs an algorithm which searches the appropriate internet databases and university repositories for papers and works which are unprotected and in the form of the pdf format including working papers (which is a unique quality of the RePEc’s method). (Zimmermann, 2012, p.253)

It is possible that this method would favour works which are both standardised in pdf formats and are digitalised, thus possibly unfairly discriminating. However the internet provides us with vast, expansive resources including most hallmark works finding their way online, not to mention that a

¹ For full methodology of the RePEc’s ranking system and database see the paper written by Christian Zimmermann while the major points and the customisations (with their motivations) will be conveyed here. (Zimmermann, 2012)
relatively recent phenomenon such as the 1997 East Asian crisis should be affected even less by this factor. The authors also explain that the earlier mentioned problem together with the protected or paywall issue are firstly corrected with an on-going incentive for publishers and authors to contribute their works to the system manually. And secondly, corrected by the system targeting easily accessible working papers which are often comparable to the published materials. The RePEc’s ranking also offers the possibilities to include downloads and abstract views as contributing weighted factors.

The RePEc rankings utilises a range of methods to reduce errors and manipulation of data. High level of confidence is required for a match to be found by the algorithm while the low confidence ones can be corrected manually. The behaviour for abnormal views and downloads is investigated including analysing IP addresses and IP clusters. Scripts (crawlers) either identify themselves or are identified by safeguard mechanisms. Other undisclosed (to prevent abuse) series of checks and balances are also present to prevent manipulation by authors including human verification of the final logs. (Zimmermann, 2012, p.254)

The default RePEc’s ranking system uses 31 indicators from 33 that they have identified (excluding the Wu-index and simple citation count). The aggregate index is an average of many different combinations of rankings by number of distinct works, number of distinct citations and number of journal pages.

Many versions of each list exist which are discounted by a single or a combination of the following criteria: citation age, number of authors and both simple and recursive impact factor. Separate lists exists for registered user citations (and one discounted by rank), downloads and abstract views over the last 12 months and strength of author’s students. RePEc also provides indicators “close” - “average number of separation through co-authorship with all other registered authors” and “between” - “the frequency the author appears on the shortest path through co-authorship between any two other registered authors” and finally breadth of citations within the field. (Zimmermann, 2012, p.263)

Christian Zimmermann suggests that the aggregate of all ranks would give the most neutral results; as is offered by RePEc in their default setting. This study will omit the “strength of students” ranking and the same categories as the default setting meaning that the metric for productivity and quantity (but not quality) of an economist will be downplayed. In addition, rankings based on abstract views and downloads will be omitted. The motivation behind this was to allow only authority figures and institutions influence the rankings. As with the default, the best and the worst works of authors are also omitted to improve accuracy during the creation of each index. (See 8.1.Appendix. For full list of used indicators).

By including various recursive impact factor criteria we are making sure that we assign different values to each citation and thus more valuable citations give authors more positive weight. We include age-discounted criteria in order to give a fair assessment of time - older works will naturally find it easier to gather more citations. Network related criteria are included as these metrics further help us grasp the importance of an author within their academic community. Finally the breadth metric is useful because we want a holistic expert to provide us with insight into the specific Asian crisis even if their background was general economics.
Geometric aggregation was chosen to be used instead of the default harmonic. Geometric both penalises poor rankings while emphasising good as opposed to harmonic which only emphasised good rankings. For the full final list of chosen criteria see Appendix 8.1. (Zimmerman, 2012) It must also be noted that customised rankings are only available for the top 5 percent of economists. Economists up to top 10 percent are only placed within their assigned percentiles.

2.1.2. Supplementary Data and Ranking

The RePEc ranking is an ambitious experiment but often many important experts are not found within due to a range of reasons including, for example, not registering within the system. Jeffrey Sachs who is not ranked in RePEc but would be considered an important economist not to mention an established contributor to the East Asian crisis debate is the perfect example. To further illustrate this point, Sachs was mentioned in the top ranks of the most influential economists of 2014 ranking conducted by the Economist. (The Economist, 2015) Furthermore, it is in the interest of the paper to cover the opinions originating from experts whose background is associated with institutions such as the World Bank and IMF even if they are lacking adequate citation support. Finally important papers have been written by developmental and international political economy scholars who contributed important ideas to the causes of the crisis yet may be represented.

In order to supplement the research and cover these limitations, additional authors will be chosen by conducting literature readings and tracing citations. Candidates will be supported by their institutional association (especially in order to grasp the International Financial Institutions’ perspective), contribution to the crisis topic and citation counts.

Thompson Reuter’s Web of Science, Google Scholar, CitEc: Citations in Economics and CiteSeerx will be used in order to collect citation counts for both the authors from RePEc and the supplemented authors in order to provide an additional unifying metric and further add weights to the arguments whenever possible.

**Thompson’s Reuters Web of Science** - A premium citation index, which has originally started as Science Citation Index (SCI). Covers vast ranges of literature with the original device dating back to 1964. It has access to over 12,000 “scientific and scholarly journals, along with conference proceedings, book content and other”. At the time of writing of his article, Christopher King, states that Web of Science has over 1 billion cited references. (King)

**Google Scholar** - Google offers an academic and scholarly search engine which also provides citation metrics. It uses scripts (crawler) programs which search the Internet for scholarly works by identifying the content and urls. Additional information is provided for the authors and service providers in case they believe the system has not included them. Google covers all most popular hosting formats and programs and searches for any appropriate database. (Google, 2016)

**CitEc** - This is the same, or the closest system used for the RePEc ranking creation. It follows the same earlier described method involving accessing studies and working papers in the PDF format using a computer algorithm.

**CiteSeerx** - Scientific digital library database which utilises various automated tools and web crawlers in order to extract and compile citation metrics from publicly available research, metadata
is also used in the process. Users may also submit their links and research into the system. It tracks Postscript and PDF files. (CiteSeerX, 2016)

For the second ranking the same approach will be taken but the works by the experts will have to be specifically focused on the financial crisis in South Korea during the 1997 East Asian financial crisis.

2.1.3. Consideration of Limitations

Limitation of the research method must be mentioned. The methods in this paper focuses on the works of the most distinguished, successful and active economists; while ignoring the works of experts lacking merits. Furthermore, the expert’s overall reputation and standing is highly influential in our method thus downplaying weaknesses in regions or more specialised topics. This method also segregates against experts who are not ranked through our methods which may have certain biases towards certain factors for instance favouring western academic systems. The validity that we give these authors is based on the academic community and we derive this from various data that is based on the activity surrounding the works of the experts. This means this methods leans towards impact of the studies which may not always translate directly to validity.

From the technical standpoint, a possible weakness is the requirement for documents to be in the pdf format as mentioned earlier. On the other hand the PDF format has become the ‘gold standard’ of the academic and publishing world. Furthermore, being more successful and popular as a paper should increase the likelihood of it being available so it only benefits the segregation method. The other technical weaknesses depends on the algorithms of the systems; both from the standpoint of avoiding errors and preventing cheating. The people responsible for each system enforce a wide range of safeguards (some of which have been mentioned briefly) which should minimise this as much as currently possible.

In defence of this method the impact and reputation of economists is based on merit and their extensive activity in economics and academia and interconnectedness to others. On-going and extensive activity surrounding the works of these experts implies that there is constant stream of feedback from the academic community which must be either come in the form of praise or having to face the test of on-going scrutiny. Furthermore, as the second section is much more focused around a single region, the rankings and academic standings of experts is more precise so this research carries more weight especially after being benchmarked against the general findings in the first section. Generally, if we consider the strengths of the method with the limitations it is very fair to say that the results should correlate the view of scholars and experts on the major causes of the East Asian crisis of 1997.

2.2. Context of the Academic Discourse

Due to the convergence of a variety of elements and ideas during the East Asian financial crisis the approaches causes have high variance from expert to expert. Yet there are still major themes which can be identified as the context for the debate. Two major opposing approaches to market regulations can place most of the experts into two opposing camps in the context of academic themes and theory. One side blaming the causes of the crisis on cronyism and weak institutions of the affected countries and poor governmental approaches while the other blaming the inherently volatile financial markets prone to panic and contagion and the deregulations promoted by western
nations. The nuances and details of these debates will be analysed in detail in the research sections later in the study but in order to grasp the historical context of the debates we need to look at the roots of some of the theories which inspired the events leading up to the 1997 Asian financial crisis.

Modern criticism for the state of international markets takes varying stances but most of it can be traced back to the early debates of surrounding the topic of neoliberalism. The following section will present some of the origins of these schools of thought while also attempting to underscore the debate around the very terminology itself and the dangers in bold classifications. The section will also describe the vehicles responsible for pushing the market reforms globally - the International Monetary Fund and the World Bank.

2.2.1. Neoliberalism and Market Deregulations

The terminology for neoliberalism has become akin to globalisation, it is used frequently but often in a very vague manner with subjective undertones. However we cannot discuss market deregulations without mentioning neoliberalism and the origins and influences for these theories. We should note that neoliberalism is often used interchangeably with market fundamentalism.

There are some inherent concerns and dangers in using neoliberalism as the basis and context of the financial crisis debate. The concept is being constantly attacked by scholars for its abstractness and the lack focus. Firstly, the term for neoliberalism is being used to “associate neoliberalism with multiple underlying concepts”. This ranges from a broad ideology, a model of development or to specific policy level approaches. Secondly it is very rarely defined when used in research. And thirdly, it often holds negative bias and connotation towards free market approaches. (Boas and Gans-Morse, 2009, p.140) In this study the chosen experts tend to address only financial liberalisation and the western influences without delving into theory, yet it is important to be aware their foundations. The paper also most closely associates monetarism, deregulation and market-based reforms as the core concepts of neoliberalism. (Jones, 2012)

Daniel Stedman, a historian studying the origins of neoliberalism, emphasised these weaknesses of terminology and for the sake of his book defined neoliberalism as, “the free market ideology based on individual liberty and limited government that connected human freedom to the actions of the rational, self-interested actor in the competitive marketplace.” (Jones, 2012)

In order to further maintain the focus we will be only looking at neoliberalism as an inspiration for developmental models and institutions such as the Washington consensus and the International Monetary Fund. Furthermore, we are going to focus on the strand of neoliberalism that is most closely associated as originating from the Austrian School of economics and later followed by the Chicago school.

The Austrian school has been started by the economist Carl Menger and his peers. Through his work, he created some core economic values on which others in the Austrian school would build their theories many of which would even contribute to contemporary orthodoxy. These values have been very humanistic and individual focused and would later form the basis for the ‘methodological individualism’ - a key concept of the Austrian school. (Menger, 2007, pp.7-8)
2.2.1.1. Friedrich A. Hayek - Political Economy Philosopher

Hayek, coming from the Austrian school, embraced the school’s core values. They played an important role throughout his theories which the free market economy while at the same time advancing the planned economy critique. He started his research by re-examining various economical basics in order to form theories which stood as opposition to the marxists approaches and even the, the dominant at the time, Keynesian school of thought.

Hayek echoed many ideas going back to Adam Smith emphasising the need for distance between the state and the economy. During his time, advocates of planned economy have been promoting views with which he disagreed. According to Hayek a liberal economy is “a system under which bad men can do least harm. It is a social system which does not depend for its functioning on our finding good men for running it”. (Feser, 2006, p.62) He further emphasis this by explaining that individuals lack information and are thus unable to truly comprehend matters on a macro level and at the same time “liberty is essential in order to leave room for the unforeseeable and unpredictable”. (Feser, 2006, p.62). This sentiment later evolves into more modern forms such as moral hazard - individuals taking excessive risks if costs are socialised.

Hayek critiques planned economy on the basis that “fundamental principle that in the ordering of our affairs we should make as much use as possible of the spontaneous forces of society, and resort as little as possible to coercion.” (Feser, 2006, pp.101-02) He insists that liberty and freedom of choice for individuals is the best course of action both economically and morally. However, he does not associate liberalism with “laissez-faire” and more importantly deregulation without a follow up. What Hayek wanted was a reformation of laws, and laws which would adapt to the changes and times while allowing the individuals and the economy to perform autonomously. In Hayek’s view planning was crucial but it was for the regulation and updating these regulation. Hayek even acknowledged the lack of security that capitalism entailed and explained that some sort of a basic safety net was needed. Important to note that Hayek “thought that a world government would be needed to entrench economic liberalism internationally.” (Feser, 2006, pp. 101-02)

From these writings we can see that even though the idea of a liberal world order was in its very infancy Hayek, who was always known as an advocate of rather stoic economic policies, could foresee the damage such a liberal world order could cause. A solid and well thought out foundation in the form of rule of law is a must.

At the same time this was grounds for some concern and and critique of Hayek due to his vague suggestions for the balance of state intervention. As the world turned to a phase of liberalism which started in 1971, Hayek became even more keen to liberals views and even abandoned the notions of a fixed exchanged rate which he previously supported. Consequently, Hayek was responsible for converging the supporters of neoliberalism and their efforts into a single organisation - the Mont Pelerin Society. This would pass on the torch of neoliberalism to other more recent academics while at the same time attempting to influence policies to align with the views of their organisation. The goals of the organisation was to promote the ideology of neoliberalism through various media channels such as journals, academia, think tank and other intellectual sources and hopefully have an overall effect on key players and policymakers. (Jones, 2012, p.4)
2.2.1.2. Chicago School - Milton Friedman

Another prominent advocate of neoliberalism thought was Milton Friedman. He is closer attributed to the second phase neoliberalism during which the theories and philosophies were able to mature and become a little more concrete. He was a member of the Mont Pelerin Society, where he met Friedrich August von Hayek and fully embraced the approaches.

To him, similar to the Austrian school - the individual was the key player in the philosophy and the main aim was to uphold individual rights and freedom. Milton Friedman believed in free open markets, lack of governmental intervention, reformed taxes, floating exchange rates and other forms of relaxed governmental form. (The Concise Encyclopedia of Economics, 2008)

At the same time Friedman understood the dangers of pure laissez-faire and its dangers. He wanted a system with a framework which facilitated the perfect environment for individuals to be able to perform by themselves. This system would be able to police the individuals and organisations in order for the laws to be followed while at the same time limits would have to be put forward. Once again we see that there is a certain paradox here as the perfect balance would need to be found; and it is hard to view neoliberalism as a full and coherent field as many thinkers would disagree on very many aspects of these balances. (Campbell, 2001)

Friedman’s essay “Neo-liberalism and its Prospects” represents his views on the political economy. Friedman tried to pivot the balance around the individual’s freedom, making sure that policies would loosen up or tighten depending on how much individual freedom was gained or lost in the process. One of such areas for instance was monopoly - Friedman believed that the government should make sure that entry into business was possible for all while enterprises were unable to prohibit others from entering the market. Friedman still wanted the government to intervene in “relieving misery and distress” or as it would be now labelled development. Friedman understood that this could not be left to private enterprises yet he also didn’t want blanket government policies such as subsidies to all farmers or a minimum wage rather he wanted policies and frameworks which would specifically target the ones in need. (Friedman, 1951, pp.89-93) In summary, he wanted a strong free market which would balance against the government, which in turn would only serve to provide the best environment. (Jones, 2012, pp.100-20)

An interesting factor which parallels Hayek’s thoughts is main dilemma - how much should the government protect. This very dilemma will be visible in the East Asian financial crisis as many shortcomings of the political and economic environment may have been based on this problem too.

Friedman argues against not only the automated gold standard but also a system involving the government’s discretionary policy or a system merging the two systems. Amongst other reasons he explains that a commodity based currency lacks the cultural myths and beliefs while the commodity itself would waste resources during its production. (Friedman, 2002, p.42) He argues against the government’s influence on the currency for fear of mismanagement and concentration of power. Friedman uses the experiences of the US during the Great Depression to emphasise the errors of the Federal Reserve to show that the discretionary policy would only makes things worse. Friedman explains that regardless of performance of the individuals in the Federal Reserve, the real issue is the system which gives individuals such power. A sentiment which was mentioned by Hayek and based on the works on Adam Smith too. He further argues that discretionary policy might miss out the bigger picture when going case by case, while broad legislation would not be applicable to some
instances. As a conclusion Friedman proposes that the stock of money is to be increased at a specific rate, which he believes would let the country learn more about money management as time went by and lower the power of financial institutions. (Friedman, 2002, p.54)

Friedman later focuses on the problems of balance of payments and gold standard mechanisms in the context of international trade - he explains how the interrelated pair when mismanagement can cause panic amongst investors. He argues that a free floating exchange would be the best solution which would increase efficiency, solving the issues of the previous system while offering the most liberty and the least concentration of power. Friedman agrees that a floating system has prices which fluctuate but argues that unhealthy and unstable fluctuations would only be a sign of structural economic problems so would be justified. (Friedman, 2002, p.62-9) Exactly these sentiments are echoed in relation to the pegged exchange system that the East Asian countries used during the crisis and the debate regarding a justified reaction by investors based on fundamental weaknesses.

Finally Friedman calls for the elimination of trade restrictions of US in the context of international trade. He shows how tariffs and quotas hurt the US as much as the trade partner and proposes a more liberal and open trade. He proposes the removal of trade restrictions over the period of around 10 years. (Friedman, 2002, p.69-74)

2.2.2.3. Ronald I. McKinnon and Edward S. Shaw

Ideas of neoliberalism finally culminated in two major developmental studies which connected the somewhat vague argumentations with more specifics and pragmatic applications. The books by McKinnon and Shaw examined the contemporary policies of emerging markets at the time, which included artificially low interest and strong government influence in credit allocation and labelled these as ‘financial repression’. (McKinnon, 2010; see also Shaw, 19730)

Thus, after these studies emerged, emerging markets using protectionist policies with strong government influence including close relations with the banking sectors and companies carried the label of financial repression until they would undergo financial liberalisation. This would be carried out with the influence of the west and international organisations such as the International Monetary Fund. Amongst many others, ‘financially repressive’ includes policies which cap or keep a very rigid and controlled interest rate, capital account and currency exchange controls and high reserve requirements. Bank investments were often directed by the government while entry to financial institutions was heavily controlled and limited. (Reinhart and Sbrancia, 2011)

According the research of McKinnon and Shaw, these very elements in an economy would hinder growth and by removing these elements one could achieve a proper efficient market economy and higher levels of growth and development. We can see clear bridged between these ideas and the earlier neoliberalism thinkers, and they perfectly develop into the core of the Washington Consensus. (Lee, 2003)
2.2.3. Washington Consensus

The following chapters presents the discussion surrounding ‘Washington Consensus’. It is a rather controversial topic, falling from grace after the consecutive financial crises during the 20th Century. It is important to be aware of the consensus as it a vital component of the International Financial Institutions ideology and policies, which played a major role during the East Asian financial crisis.

The Washington Consensus is the perfect bridge between the academia and actual policy prescriptions. While the main Bretton Woods institutions - the World Bank and IMF - became the main institutions for influencing and developing the economies of the less advanced countries, the Washington consensus in turn became a “global policy mantra” which “constituted [what are] ‘good’ economic policies”. (Beeson and Islam, 2005)

The term was coined by John Williamson in 1989 in one of his papers as he described the 10 ‘commandments’ that summarised most of the Washington officials thought would make great reforms in Latin America. (Narcís and Stiglitz, 2008) (Williamson, 2000) In the paper he “described the economic orthodoxy that prevailed in the US Treasury Department and in key IFIs.” (Beeson and Islam, 2005) In the original consensus the core components are summarised by Williamson in a concise list of 10 points - while both vague and open to interpretation the points convey a certain flavour of policy. The main points are as follows:

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<th>Original Washington Consensus</th>
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<tr>
<td>Fiscal discipline</td>
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<td>A redirection of public expenditure priorities toward fields offering both high economic returns and the potential to improve income distribution, such as primary health care, primary education, and infrastructure.</td>
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<td>Tax reform (to lower marginal rates and broaden the tax base).</td>
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<td>Interest rate liberalization.</td>
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<tr>
<td>A competitive exchange rate.</td>
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<tr>
<td>Trade liberalisation</td>
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<tr>
<td>Liberalisation of FDI flows</td>
</tr>
<tr>
<td>Deregulation (in the sense of abolishing barriers to entry and exit)</td>
</tr>
<tr>
<td>Secure Property Rights</td>
</tr>
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TABLE 1. “WASHINGTON CONSENSUS”

Immediately we can see that the elements of Washington consensus (Found in Table 1.) remind us of the thinkers of the neoliberal era, especially Hayek and Friedman. The fiscal discipline, trade liberalisation, financial deregulation and privatisation are all elements of a neoliberal economy. The major difference falls on the tax reform category and redirection of public expenditure - both areas which neoliberalism would rather limit. This difference can be explained because neoliberalism was formed as an opponent to the orthodoxy in developed countries with already formed and powerful social security nets; while the Washington consensus was primarily aimed at countries with very weak institutions in such areas.

Many observers and critics seem to agree that from around 1980s to the end of the 1990s neoliberal policies were orthodoxy and made the backbone of policies and decisions.(Rodrik, 2002) However,
the Washington consensus has also been at the centre of controversy, with critics voicing their disagreements in regards to both, the ideological point of view and from the perspective of poor performance. The ideological criticism accuses the consensus of being a promoter of radical neoliberalism and market fundamentalism. Williamson contests this point.

For instance the World Bank and Dani Rodrik both looked at the common policies for dealing with crisis stricken countries which prevailed during the period when the Washington consensus was active. This resulted in a study titled “Economic Growth in the 1990s: Learning from a Decade of Reform” by the World Bank and later a paper by Rodrik further interpreting this report and his commentary on it. (World Bank, 2005; see also Rodrik, 2006)

A two part criticism was that the Washington consensus was too focused on statistical results, as the positive outcomes of the policies were signalled by higher outputs and more growth. Rodrik describes it as, “market or government failures that affect accumulation or productivity change are much more costly, and hence are more deserving of policy attention, than distortions that simply affect static resource allocation.” Further criticism of the interpretation of the consensus was that the various objectives of the consensus, instead of being translated into various different unique policies, instead ended up homogenous approaches to every situation or ‘cookie cutter’ approach. As an example, Rodrik explains how trade openness could be achieved not only through lower import tariffs but also through duty drawbacks, export subsidies, special economic zones and others. Yet the methods used have heavily relied on a single set of ‘best practice’. (Rodrik, 2006, p.6)

Every situations was met with the same approach without adapting them to the specific contexts. This criticism is compounded with the fact that the reformists were overly focused on having constraints which would limit the government discretion. Which was done in order to limit any intentional or unintentional shortcomings of the governmental workings but became a problem when various economic constraints or issues come up that require working outside the limits of these constraints. Rodrik suggested that policy should rather focus on the economic growth constraints and how to fix them instead of limiting discretionary policy - he illustrates this with an example scenario were lack of secure property rights hinders the development of other aspects such as financial intermediation would not help. (Rodrik, 2006, p.7)

J. E. Stiglitz also presents a critical perspective of the Washington Consensus; however he uses the term to describe the actions and policies undertaken by the U.S Treasury and international financial institutions, especially during the 80s and early 90s. He also distances the phenomenon from Williamson who coined it, implying misinterpretation. Stiglitz explains how reducing the role of the government was the key feature. (Narcís and Stiglitz, 2008) The Washington consensus both vilified the local governments and assigned blame to based on the lack of transparency and presence of corruption. The double standards of the Washington consensus was also emphasised by Stiglitz as the western institutions often demanded standards of transparency which were lacking in their own countries.

The author of the Washington consensus, John Williamson, defends his own work and integrity and has since revisited it many times. His major concern is that it was misinterpreted as propaganda for extreme neoliberalism and pro laissez faire government system which he denies. He defends his position by agreeing that the direction of the approach was to lower the role of the governments while introducing various policies which alleviate poverty. Incidentally many of his refined still end up mirroring various neoliberal philosophers as we have seen before, but Williamson’s insistence on
this point may be explained by the stigma associated with the preceding Reagan-Thatcher era. He also explains how the initial census was geographically and time specific to Latin America in 1989 yet adds that if tasked to come up with a similar set of rules and policies for a different location he would not have altered them much. Evidently this still goes against one of its main criticisms regarding the context. (Williamson, 2000)

2.2.4. International Monetary Fund and the World Bank

This chapter provides a brief history and function of the International Financial Institutions (IFIs) which ended up being major players during and after the East Asian Financial crisis. The discussion of the previous chapters manifests itself into practice through these very organisations, during the period and preceding the East Asian Financial crisis in the form of financial liberalisation.

In 1944 at Bretton Woods Conference, New Hampshire the International Monetary Fund was created in order to “recreate and international monetary system”. The World Bank was also created at the same time in order “fund specific projects to assist countries in postwar reconstruction and in development”. (Barkin, 2006, p.94) Initially the IMF was responsible for assisting other countries in maintaining “macroeconomic stability and the fixed exchange rate system (known as Bretton Woods system). This was achieved by the organisation lending money in order to help countries sort out their balance of payments difficulties. Balance of payments and macroeconomic stability became the main responsibilities as the fixed exchange rate system fell apart in early 1970s. (Barkin, 2006, p.94)

Together the two organisations make up International Financial Institutions and are very alike in their structure and workings. They have very specific tasks and operate for profit by charging member states interest and only occasionally asking for funding for the IFI’s working capital. Contribution to the organisation provides members states with “shares” which result in control. As big industrialised countries contribute the most they have “not only de facto but also de jure control over the activities of the IFIs”. United States holds 17.14 % of the vote while the US, EU and Japan together make up the majority. (Barkin, 2006, p.94) A lot of the lending authority and day-to-day workings of the organisation are delegated to executive staff and the managing director. The directors at the top level are finance ministers or central bank directors and chosen from member states according to the amount of shares. An “unofficial but generally accepted rule is that the managing director of the World Bank will be American while that of the IMF will be a European” (Barkin, 2006, p.94)

The main activities of the IMF include surveillance, financial assistance and technical assistance. Surveillance means having a dialogues with the countries regarding the “national and international repercussions of their economic and financial policies.” Financial assistance is lending of money and extension of credit lines, while the technical assistance is allowing countries to borrow IMF economists to assist with fiscal and financial system management. (Barkin, 2006, p.95)

The IMF combines these activities through conditionality. This means that loans and support is provided to countries only if they are willing to fulfil or promise to fulfil certain prescriptions dictated by the IMF. According to J. Samuel Barkin, an expert in international relations and international organisations, the conditionality often include “some combination of reducing budget deficits, increasing fiscal transparency, fighting corruption, opening markets, reforming domestic financial and banking structures and privatising government-held businesses” which he also
summarises as “a set of macroeconomic policy conditions, usually involving neoliberal reforms to national fiscal and regulatory policy”. (Barkin, 2006, p.95)

Some of the major criticism of the IMF are focused around their legitimacy, their policies and their ideology. The legitimacy criticism stems from the fact that the individuals within the organisations are not elected democratically while at the same time countries with more share end up with power within the organisations. Critics have often compared this to modern colonialism. The second criticism stems from the actual set of policies and ideologies as critics believe that the promised policies may be flawed which directly ties back to the general discussion of the Washington consensus. (Barkin, 2006, p.98)

2.3. State of the Art - Financial and Currency Crisis

The following chapters presents the literature on financial crisis that is most relevant to the East Asian Financial Crisis. Towards the end of the section is also a review of other general accounts and interpretations of the crisis who have also served as inspiration for the method.

It must be noted that a common claim often emphasised in regards to the 1997 crisis by many experts is that it doesn’t follow the traditional literature. (Bustelo, 1993, p.3) Combined with the lack of specific consensus this stands in favour of this research. On the other hand the previous body of academic literature cannot be discarded completely as they guide us towards some of the possible causes while also forming the foundation of many experts used in this study. Not to mention that they also support the authors who argue that the East Asian Financial crisis still follows the classical literature. (Jeanne, 1999, p.6)

Financial crises often share common elements yet differ widely in nature. Even though many crises often arise due to fundamental flaws within the economy, there is an on-going academic debate as to the precise reasons that set them off. In the review of the financial crisis literature by Claessens and Kose for instance, they consider a financial crisis a phenomenon that shares one or more of the following: “substantial changes in credit volume and asset prices; severe disruptions in financial intermediation and the supply of external financing to various actors in the economy; large scale balance sheet problems (of firms, households, financial intermediaries and sovereigns); and large scale government support (in the form of liquidity support and recapitalization)”. (Claessens and Kose, 2013, p.4)

2.3.1. Literature on Currency Crisis

First we will look at the currency crises literature which is a subset of research focusing on financial crises. Currency crises literature is often categorised in “generations” as new approaches developed over time. This includes the “first-generation models and the “second-generation” models. This will be followed by a presentation of the recent banking crises literature and a discussion of several financial market complexities. Finally “third-generation” and other models will be discussed briefly but essentially left for the experts in the results section.

At the forefront is the traditional currency crises theoretical models, referred to as “first-generation” models and “second-generation”. The paramount research of the “first generation” model has been conducted by Krugman in “Balance of Payments Crisis model” (1979) and by Flood and Garber in “Collapsing Exchange Rate Regimes”. (1984) Krugman developed upon the earlier works by
Steven Salant and Dale Henderson (1976) which looked at the way speculative attacks were conducted on the US dollar during the times of the gold standard. It was found that the model could be translated and used for fixed and pegged-exchange rates in a similar fashion as the “gold-standard” is replaced by a stronger international currency - the US dollar.

The crux of the model explains that countries with fixed or pegged exchange rates must hold large reserves of international and liquid currency in order to adjust the exchange rate as needed. If the domestic credit expansion is inconsistent with the pegged rate then speculators play against the mismanagement of macroeconomic policy and punish the governments. As the international reserves near close to depletion, investors will act rationally and choose to jump currencies preemptively in order to avoid losses. This forces the crisis much sooner even if the low-reserves would have still covered the currency for a short period, had the investors not panicked. Crisis ensures, during which the governments either devalues the currency or switches to a floating system. (Flood and Garber, 1984, p.5) According to the first generation models the governments needs to decide when to switch to a different currency system. In the first-generation models the blame is mostly put on the governments as they commit to bad policies and bad fundamentals.

An issue with the “first generation” models was that governments were viewed as too mechanical and too constrained while in reality they possessed other means to intervene in their currency. Going with the first model the governments were supposed to spend their reserves until depletion without hesitation, when in reality they could for instance “tighten domestic monetary policies” instead to alleviate some of the problems. (Feldstein, 1999,p.424)

The “second generation” crises literature attempts to remedy this issue by shifting the focus onto the investors, actors and expectations. They also introduce multiple equilibria. The paramount study of the “second-generation” models has been conducted by Maurice Obstfeld (1994) in “The Logic of Currency Crisis”. (p.424) At the heart of these models is the interplay of two main push factors - a reason holding back the switch to a new currency system (for example a fixed currency system perceived better for international trade and investment) and a reason pushing for the switch to a new system (such as the growing cost of the unemployment). Finally a third factor ties the two polar sides together - there has to be an expectation or assumption that the cost pushing for the switch will only increase in time. (Feldstein, 1999,p.425)

The very doubt over the decision of the government is what forces the investors to make their decisions early. Thus, the crisis is now driven by expectations as actions are taken by speculators and authority in an attempt to lower the future costs, which force situations sooner and compound the crisis. Any doubt, action, decision or news from the government turns into signals that has a direct effect on investors. If the investors believe that these are enough to invite speculative attacks from other investors (self-fulfilling prophecies) then they will in turn resort to jumping currencies and thus causing the crisis. (Claessens and Kose, 2013, p.13) In the “second-generation” models the governments have a choice of making the currency switch or not and accepting the trade-offs. See Flood and Marion’s review for an excellent presentation of second-generation models and a discussion on their limitations and processes. (Flood and Marion, 1998) In second-generation crises the blame is often put on the speculators and sometimes on self-fulfilling prophecies (which is still contested). Indecisive or openly doubting governments can also be attributed as faults.

With this wave of literature also came new elements of crises which may suggest that actions may occur regardless of the macroeconomic policies. These elements also raise some important
constraints and challenges to the first two models. We are introduced to “self fulfilling prophecies”, “herding” and “contagion”:

- “Self fulfilling prophecies” occurs in a situation when investors start to reverse their capital based on their expectation of a future crisis, thus possibly influencing the creation of a unjustified crisis. A shock is required to trigger them which can come in the form of bad news or terms of trade deterioration. At the same time the shock has exceed (in terms of ‘seriousness’) the transaction costs of moving their funds to safety. It is also argued by some, such as Krugman, that an economy capable of providing signals that would set off investors is an economy that would eventually enter a natural crisis. (Feldstein, 1999,p.427-8) The limitations of self-fulfilling prophecies are expressed in the fact that the fundamentals are assumed to be common knowledge in both “first” and “second-generation” crisis literature.

- “Herding” challenges the mechanisms of the first two models. Firstly, we are reminded that in the earlier models we assume a perfectly efficient economy when in reality transaction costs and lack of perfect information is present. Secondly, the notion of the rational investor is challenged, for instance studies have been conducted that showed that investors can rely too much on gut feeling. A prominent study which looked at this was conducted by Robert. J. Schiller regarding the Stock Market Crash of 1987. Respondents tp his questionnaire would often provide “intuition” and “gut feeling” as motivations fpr making financial decisions. (Shiller, 1990, p.57) Chari and Kehoe have looked at the bandwagoning effect and how it could lead to or create a crisis situation with minimal relations to actual faulty fundamentals. Their study looks at how investors would get alarmed by the actions of other money managers and assume that those investors are in possession of special information. Sometimes because this investors would emulate each other, even going against their own assessments - information cascading. (Chari and Kehoe, 1997) Krugman also notes how since money managers are ranked according to the success of their peers they face higher costs and risks if they don’t mirror others. (Feldstein, 1999,p.429) Calvo and Mendoza have looked at this in earlier studies from a more meta perspective. As every investor follows each other and the market sentiment (as seen from other reputable investors for instance) it creates identical investors with identical incomplete information. (Calvo and Mendoza, 1997)

- “Contagion” is the mechanism of transition that financial crises use to spread. These theories help us understand how very different states are able to undergo similar financial turmoils due close proximity to ones in crisis. One explanation, for example, relies on trade links to explain contagion, meaning that depreciation in the export goods of one country would also directly damage the prices of the other. In more recent studies trade link have been found to be not great a showing contagion. (Feldstein, 1999,p.430) Krugman also proposes that from a political standpoint a country abandoning their exchange rate system would make it less costly for the neighbouring countries to follow which could explain similar behaviour. Barry Eichengreen, Andre Rose and Charles Wyplosz looked at contagions in “Contagious Currency Crisis”, conducting empirical data studies to find that crisis in one part of the world resulted in higher chances of crises in other states, closer to the source. In their works they leaned more towards economic and financial links rather than macroeconomic similarities. (Morris and Shin, 1998,pp.587-97) Krugman also proposes that certain cultural backgrounds could be linking certain countries together in the eyes of investors and thus creating a common identity based on how foreigners see the region. (Feldstein, 1999,p.430) On the other there are theories that suggest that mechanisms, standardisation and practices in the investment world are responsible
for contagion effects. Roberto Rigobon looked at asset classifications by rating agencies and proposes that these classification play an important role in “classing” together regions in the eyes of investors. (Rigobon, 2001) Another study looks at the way that investors try to emulate each other and attempt to refine their portfolios by unloading overexposed investments in order to remain more similar to others. (Broner, Gelos and Reinhart, 2004) Caroline Van Rijckeghem and Beatrice Weder looked at how shared banks spread contagion as troubled banks would be enforcing similar policies towards their entire portfolio. (2000) As we can see, contagion is a word used quite often by many academics yet the causes vary and depend highly from the perspective that we take.

2.3.2. Literature on Banking Crises and Other Financial Crises

This chapter presents models and theories of financial crises which focus on other sectors and aspects of the economy, mainly the banking sector and various mechanisms of the financial infrastructure.

Bank Run

Banking crises have been common throughout our history due to the bank’s inherently fragile structure. Banking crisis stems from the lack of proper withdrawal coordination between depositors. Bank runs are self-fulfilling prophecies based on the level of confidence depositors have in the organisation and in relation to the amount of liquid funds available to honour the obligations of depositors. The titular study on banks runs has been conducted Douglas W. Diamond and Philip H. Dybvig in their study “Bank Runs, Deposit Insurance and Liquidity” in which they outline the classical bank run model which utilises self-fulfilling panics and game theory. (1983) Banks are intermediaries who connect businesses seeking long-term loans with depositors who desire the possibility to withdraw funds and consequently seek short-term loans. The bank can maintain this system as long as the risk is spread out and confidence is ensured. The model relies on the Nash equilibrium - as soon as confidence in the bank’s ability to pay back loans is lost, in other words, as soon as the depositors expect others to withdraw their funds en mass an actual bank run ends up occurring. As many of banks outgoing loans are long-term and non liquid, due to the panicked behaviour of depositors the bank is actually unable to pay them back and the prophecy is fulfilled. Three conditions should be met in most cases for a bank run to happen: “short-term debts exceed short-term assets, no single private-market creditor is large enough to supply all of the credits necessary to pay off existing short-term debts; and there is no lender of last resort.” (Radelet and Sachs, 1998, p.5)

In order to protect against bank runs depositor insurance has been introduced as a “lender of last resort” - central banks and international organisations (such as IMF) can assist in paying back depositors. These all aim to reduce the fragility of banking and restore confidence. In the past these guarantees have been implicit - the government would choose to bail out banks after the incident, thus sending a message to other banks. Modern banking policies have developed into the guarantees by telling banks up-front that their funds are guaranteed. (McCoy, 2008) This introduces the problems of “moral hazard” - banks and investors who believe to be guaranteed by other organisations may in turn resort to more riskier investments. In other words this guarantee tells banks that they can attempt to make profits from any kind of investment while face no loss because that risk is socialised. (Akerlof and Romer, 1994) The moral-hazard crisis model by Akerlof and Romer (1996) must be emphasised as it has a foundation for explaining bank crisis on its own
merit. This ends up forming a strong foundation for Krugman’s explanations of the crisis in the form of excessive ‘gambling’. (Krugman, 1998) While for instance, Radelet and Sachs note is as one of their five financial crisis classifications. (Radelet and Sachs, 1998, p.6) Other safeguards also come from better disciplines in the financial market, more risk management and regulations at the businesses level and intervention by governments. (Claessens and Kose, 2013, p.19) As we can see investor confidence is an increasingly important criteria in terms of financial institutions within a globalised/liberalised environment.

Sudden Stops

In a way sudden stops are comparable to the bank runs but on an international scale. Sudden stop research focuses specifically at scenarios involving international financing (especially of emerging markets) and international credit flows. This works really well with the Asian Financial Crisis and a lot of later studies examining sudden stops have been conducted with East Asia in mind or as a case study. The term was coined in a study by Rüdiger Dornbusch et al. as they quoted a banker talking about Mexico, “it is not speed that kills, it is the sudden stop”. (Dornbusch, Werner, Calvo and Fischer, 1994) Earlier studies have focused solely on current-account reversals such as the one by Milesi-Ferretti and Razin, however these phenomenon could be attributed to both negative and positive performances or triggers. (2000) So sudden stops would be more encompassing and appropriate in regards to financial crisis and welfare deterioration.

Sudden stop occurs when international or domestic investors halt or reverse their credit flows for a certain country. This creates a mismatch in the balance sheets which in turn drains the international reserve and also an overall lower demand for the country’s exports. This may result in depreciation of the afflicted country’s currency. (Calvo, Izquierdo and Loo-Kung, 2005) The balance sheet problems may lead the businesses, dependent on the cash flows, to illiquidity as this disrupts their operations and takes away their ability to pay interest. This situation results in an overall fall in output and together with the worsened currency this leads to a financial crisis. (Calvo, 1998) Sudden stops may also lead to asset price bubble bursts, as prices end up corrected post-shock.

Guillermo A. Calvo collaborating with other academics has conducted a lot of research on “sudden stop” crisis, as well as looking at the East Asian financial crisis under the same perspective. They classify the cause of a sudden stop as a systemic risk - i.e. the general disturbances in capital market. Some researchers attribute this to Fischer’s debt-deflation (1933) theories involving the credit cycle and debt shrinkages - as the world experiences an overall decrease in debt levels, asset price bubbles are set off and sudden stops occur. (Mendoza, 2010)

In the meantime various domestic vulnerabilities amplify the international sudden stop and transform them into a domestic financial crisis. It was found that sudden stop tend to affect emerging markets more than developed one. (Calvo, Izquierdo and Loo-Kung, 2005) As the international markets experience shocks, globally investors become more cautious and credit becomes more expensive. Investor’s incentive to seek more information increases too so self-fulfilling mechanisms and explanations are also common. Calvo, Izquierdo and Mejia conducted an empirical research on 32 developing and developed countries finding that the causes and probability of sudden stop occurrence. They find that the higher the domestic dollar dollarisation the higher the susceptibility to sudden stops. (2004) The second factor is a “small supply of tradable goods relative to domestic absorption”, the more closed the trade sector the higher susceptibility to sudden stops. (Claessens and Kose, 2013, p.15)
Bubbles: Asset Price Bubbles and Credit Booms and Busts

**Asset Price Booms** occurs when investors and speculators purchase assets at a price higher than the one that can be justified by economic fundamentals. Prices of assets often deviate from their “real value” even in normal conditions yet if this occurs at an abnormal rate and the deviation is too large they becomes susceptible to even a small shock with a high potential for the bubble to bust. Bubbles are also historic events and historians observe them throughout our human history e.g. “Dutch Tulipmania” (1634–1637). (Garber, 2000, p.12)

There is a lot of literature on causes of financial bubbles. Only a few mayor studies will be presented as the presence and influence of an asset bubble is something under question during the Asian Financial Crisis. Furthermore, some literature also views asset bubbles (and credit booms) as a symptom of financial crisis rather than the cause. (Calessens and Kose, 2013, pp.5-7)

While some studies view bubbles as a result of irrational behaviour or macroeconomic histories, Blanchard and Watson took the stance that they can also be created by rational actors. In their model the exponential growth of a bubble ends up outweighing the risks, which occurs due to each investor having their own “perspective” of the bubble and thus their own risk assessment. They conclude that rational and irrational bubbles are two different entities. (Blanchard and Watson, 1982)

Another classical cause of asset price bubbles, is Irving Fischer’s credit cycle and debt-deflation approach which looks at the overall fall in credit supply which ends up triggering a re-evaluation of asset prices as investors attempt to liquidate them. (Fischer, 1933) There are many other theories which analyse the occurrence of bubbles such as the agency approach which looks at how the financial sector rewards gains much more than it punishes losses in e.g. in fund managers encouraged to take more risks. (Rajan, 2005) Finally academics also tie financial sector vulnerabilities and agency elements discussed previously such as herding and information cascading in order to use these to explain bubble formation. Detailed review of this can be found in Brunnermeier’s review. (2001)

**Credit Booms and Investment Booms** are similar to financial bubbles. They are created by the sudden increase in available credit quantity and decrease in credit prices. In studies, academics tend to resort to credit-to-GDP ratio, and consider large enough deviations from norm as credit booms. This is much more relevant to the East Asian crisis. While credit booms can be associated with various shocks and changes in the economy we are primarily interested in the ones preceded or accompanied by periods of high-growth rates and positive economic performance. These were also examined before the East Asian financial crisis as the affected countries. Furthermore we are also interested in the theories related to structural changes, primarily towards liberalisations and opening of economies as, once again, was observed in the East Asian Financial crisis.

Studies have shown that periods of low-interest rates tend to encourage lenders to resort to riskier deals while increases in interest rates often increases the quality of investment made. (Claessens, Igan and Dell’ariccia. 2010, p.5) Finally, and probably most relevant to the East Asian case, academics also find an upward trend in the number of credit booms after the times of financial deregulations. (Kaminsky and Reinhart, 1996) This is a very common researched topic as more integration into the financial system and more financial liberalisation (especially if done in a hasty manner and under possible international pressure) results in large amounts of credit inflows. The
recent growth experience and positive future expectations pull in more investors, while little experience in the integrated global markers, lack of proper disciplined procedures nor protection against credit flight contribute to the fragility. More competition may lead to stability and efficiency in the future but in the short-term it contributes towards lowering of lending standards and further vulnerabilities. (Claessens and Kose, 2013, p.8)

2.3.3. Third-Generation Literature, Hyman Minsky and other models

The third generation crisis literature is a newer development which has come forward as part of the Asian financial crisis analysis. This way, any such theories inherently fully resemble data in the results section and thus will be discussed there. See analysed works authored by Paul. R. Krugman (1999) and Roberto Chang and Andrés Velasco (2001) in the results section.

In a similar fashion, other models and approaches such the Hyman Minsky perspective or the Insurance model often reframe the crisis in a unique manner consequently making it easier to present their models within their analysis once chosen as experts in the results section. See (Arestis and Glickman, 1999; see also Kregel, 1998) for the Minsky approaches. For the insurance model see (Chinn, Dooley and Shrestha, 1999; see also Dooley and Shin, 2000).

2.3.4. Other General Accounts of the East Asian Financial Crisis and their Classifications influences

Earlier general and holistic overviews of the crisis have also been conducted. Majority of these studies have been conducted much closer to the crisis and none of the approaches relies on a similar methodology used in this paper. Several key studies which have also provided inspiration for the method and the analysis of this research paper will be mentioned in this section. Every study still agrees that no definite consensus exists regarding the causes, even if each review presents certain elements that the authors believe to be of higher importance.

Pablo Bustelo conducts an extensive literature overview, categorising and refuting many of them. The categories he assigns includes: financial bubbles and declining returns no investments, bad banking, misguided macro-policy, unsound fundamentals and international capitals, self-fulfilling panics in external financial markets, financial under regulation and speculative attacks, and a combined explanation. From these Bustelo derives three major categories - misguided macro policy, herding and overreaction to the market, and fragile and vulnerable economy without proper regulations. Bustelo acknowledges that a consensus is still lacking. He stresses the importance of over investment and especially too much financial liberalisation. (Bustelo, 1998)

Corbett and Vines conduct a literature review of the causes of the crisis to find three major categories of explanations: supply-side explanations focusing on investments, financial structure explanations that focus on asset price bubbles and bank runs; and macro-management/currency crisis which looks at the relation between currency exchange policy and the open market. As a conclusion they find lacking consensus between the three, in addition to each “story” offering different policy prescriptions. (Corbett and Vines, 1998).

The review made by Griffith-Jones and Pfaffenzeller focuses on several major interpretations including structural weaknesses found in Thailand and other states, decomposition of corporate debt, the role of China as a competitor of export goods and overreaction and contagion. As a
conclusion they find no major consensus exist while a very large number of interpretations is available. They conclude that fragility and a highly leveraged banking and company position seems to stand out as forming consensus. Areas with more disagreement are the ones focusing on policy regarding the state of macroeconomics and mechanisms behind the contagion. (Griffith-Jones and Pfaffenzeller, 1998)

3. The Economic Background and Stylised Facts

The following set of chapters will aim to depict the state of the economic affairs of the countries who were hit by the 1997 crisis. This will include their economic performances and the structural and policy reforms regarding finances and trade which occurred from 1980s and through the 1990s in the form of financial liberalisation.

3.1. The “Asian Miracle”

Leading up to the crisis, countries in the East Asian region have been hailed as wonders of development and the “Asian Miracle” become a common term. The general expectations were extremely positive and some of the emerging economies, like Thailand, were expected to become the next financial hubs.

In 1993 the World Bank published a study titled “The East Asian Miracle” which praised the policies, expectations and performance of the East Asian region. South Korea made it as one of the so-called “Four Tigers” while Indonesia, Malaysia and Thailand were labelled as the newly industrialised (but successful) emerging markets. Only the Philippines and Japan didn’t explicitly get praised. These optimistic growths over the years between 1960s and 1990s have been said to be twice as fast as others emerging markets in the region and even outpacing the oil-rich Middle Eastern states. (Page, Kim and Stiglitz, 1993) Not only was the praise directed at economic growth but also social developments such as dramatic 20-40 percent decreases in ‘population in poverty’ indexes for Indonesia, Malaysia and Thailand. Life expectancy also increased by 10-20 years in the East Asian region and income inequality was noticeably decreasing. (World Bank, 2005, pp.30-8)

The World Bank report provides several possible factors explaining the Asian success, including social and economic reasons alike. Amongst them, emphasised was the government’s interventionist role. This is a crucial point because on one hand heavy governments interventions existed in East Asia meaning they played a part in this development (or the development of the crisis?). On the other they were increasingly weakened and removed on the ‘eve’ of the crisis through financial liberalisation.

This change being in close proximity to the crisis resulted in one of the major disagreements regarding the cause of the crisis and the role of the government and the traditional system.
In Graph 1. we can see how the GDP of all 5 East Asian states was steadily growing, and we can also understand how this would look even more optimistic for the future expectations. South Korea visibly development much more dramatically compared to the other states. We can also see the recovery stage in 1999 and onwards after the obvious slumps around 1997 and 1998 - the crisis years.

Interestingly, the World Bank report highlights some unusual elements as positive, which later end up become the driving debate points regarding the causes of the crisis within the studies of some experts. The major one is unusually high levels of private investments.

The exports of the East Asian economies were also extremely strong as they usually made up the core engine of their economies and development. The export growth was steady over the years and only faltered during the years of the crisis as can be seen in Graph 2.

In all indexes South Korea is seen as the leader of the region, clearly in a league of its own.
However, overall we can see that all mentioned Asian economies were regarded as high achievers
and viewed as the new standard of emerging markets development that should be emulated by other
states. In fact, the very wave of liberalisation was deemed acceptable by some as a result of these
developments as a so called ‘right of passage’ to becoming a developed country. The countries also
seemingly prepared for this challenges as the reserves were steadily growing. The adequacy of these
reserves falls under question when we consider the burst growth of reserves in the years after the
crisis (See Graph 3.) and the speed with which they were depleted during the crisis.

3.2. Financial Liberalisation and Reforms before the Crisis

From the standpoint of development, entering the global financial environments was seen as the
next progressive move and. The 1980s and 1990s are regarded as the time periods for the waves of
financial liberalisation for most of the developing countries. (World Bank, 2005, p.207) In 1970s
and 1980s the global financial structure experienced shocks, and the unstable environment was felt
in Asia, Latin America and Africa. (Ahmed and Islam, 2009, p.84)
States wanted more access to international fundings and to lower the power of the government in
order to make their economies more efficient and stable while keeping up the successful streak of
development. More financial flexibility and being able to compete fully in an international arena
were also seen as benefits of liberalisation. (Hansanti, Islam and Sheehan, 2008, p.184)

The combination of the successful growth rates in the East Asian countries combined with the
earlier examined political environment of neoliberal or rather Washington consensus inspired such a
period for East Asia. Generally this occurred in the 1980s but for each state the timing was
different. (World Bank, 2005, p.209) Each state also implemented the various elements of financial
liberalisation to varying degrees.

This chapter presents a summary of these developments throughout the countries of East Asian
while reserving the analysis of these developments and their contribution to the crisis for the later
sections for the critics.

3.2.1. Thailand

The liberalisation movement started to pick up during the 1980s through limited reforms. From
1984 Thailand pegged their currency to a weighted basket of currencies of their main trading
partners with a clear bias towards the US dollar, essentially making it pegged to the US dollar in
practice. (Agéor, 2004, p.318) Export taxes were mostly removed while the import tariffs remained
as they were needed to support government revenue. (Alba, Hernandez and Klingebiel, 1999, p.7)
Thailand also enjoyed rather liberalised inflows through portfolio and equity, unlike outflows which
were still restricted. (Ariyoshi, 2000, p.51) FDI restrictions have been lifted starting from 1970s
through the Alien Business Law in 1972 and Investment Promotion Act of 1977. These acts formed
a negative list system - considered fairly relaxed. During the 1970s most of the “inflows in import-
substitutions industries had been lifted.” (Park and Bae, 2002, p.44)
During 1987, Thailand was very bank orientated and the financial system was fairly developed compared to other similar-GDP states. A World Bank research describes the formal financial system as consisting of “commercial banks, finance companies, credit foncier companies, Government Savings Banks, private and government insurance companies, and a number of sectorally and functionally specialised financial institutions.” (Alba, Hernandez and Klingebiel, 1999, p.8)

Banking sector was very concentrated with "16 families dominating their ownerships" and resembling monopolistic/oligopolistic features. Having more than three quarters of all short-term and long-term deposits they also dictated the services and mechanism to other financial institutions as they possessed the supply. (Ahmed and Islam, 2009, p.88) Entry costs into banking were extremely costly and banking licenses were rare.

Financial institutions were present in order to provide financial services which the banks were not allowed to. They were arguably more efficient and had more competition amongst each other. They also had higher risk in their portfolios. Both commercial banks and institutions primarily dealt with lending. In 1987 deposits and lending rates both had ceilings that were set by the Bank of Thailand. Furthermore, the government intervened by creating requirements to lend to particular economic sectors (e.g. agricultural). (Alba, Hernandez and Klingebiel, 1999, p.10) However the country was still very closed off, and the bond markets underdeveloped. The financial crisis 1983-1987 set some dangerous precedents as Thailand bailed out most of the depositors and left the banking structures and agents intact. During this time the financial structure in Thailand was still rather weak and lacking many important elements. Regulatory channels were not strong enough and neither was the enforcement which resulted in an environment prone to moral hazard. (Alba, Hernandez and Klingebiel, 1999, p.14)

By 1985, Thailand already had a fairly liberalised current and capital accounts, especially for foreign direct investment and portfolio investments. Exchange controls were still present as a sort of bottle neck, and Thai residents and banks had to register with Bank of Thailand to borrow foreign funds.

The most impactful changes occurred in the 1990s. In May 1990, Thailand accepted the Article VIII of the IMF Agreements. (Lee, 2003) The major points of the agreements called for the removal of foreign exchange transactions while guaranteeing currency exchange, through “capital control deregulations and foreign exchange reform.” (Ahmed and Islam, 2009, p.184) This agreement was a major step towards liberalisation as it called for many decisive reforms in policy.

The Thai government “abolished interest rates ceiling and promoted development of capital and bond markets” in the 1990s. Long-term deposits ceilings were removed in 1989 and by 1992 every other followed.

In 1989-1990 Thailand opened access to foreign funds, thus allowing inflows, to the public and allowed outflows “in the form of dividends, interest or principle repayments”. In the meantime they relaxed and decentralised commercial bank’s procedure - as they could now conduct foreign exchange trade without the approval from the Bank of Thailand. In 1991 and 1992 the it was made easier for the public to trade in foreign exchange. (Ahmed and Islam, 2009, p.88) In 1990 three mutual funds were created in order to attract more foreign investment and in 1991 the repatriation of foreign funds was fully liberalised. (Alba, Hernandez and Klingebiel, 1999, p.17-8)

In 1991 foreigners could own 100 percent of local companies as long as they only exported. FDI was further encouraged through tax breaks or exemptions. (Park and Bae, 2002, p.44)
In 1993 the Bangkok International Banking Facility (BIBF) was created with the aim of making Thailand the international financial hub. It enjoyed special tax and regulation advantages in order to attract even more inflows with the favourable environment. It was created as an offshore financial market and to encourage international banking. It attracted foreign deposits and funds in order to lend both locally and internationally. The BIBF dealt with mostly short-term funding, while also making it easier for more numerous and smaller firms to gain access to such funds. (Alba, Hernandez and Klingebiel, 1999, p.17-8) This institution is considered one of the most important developments during the Thai financial liberalisation and plays an important role during 1997 financial crisis. In 1994 “Thailand raised the limit on the outflows in baht from 250,000 to 500,000 baht” and the amount allowed for to transfer overseas in dollars from 5 to 10 million. (Hansanti, Islam and Sheehan, 2008, p.184)

These changes had the effect of massive surges of cash inflows. Prior to the changes the regulations for cash inflows and outflows were under strict controls while after, virtually all restrictions have been lifted and cashflow was free. Malaysia and Indonesia tried to impose quantitative restrictions on cash inflows while Thailand chose to liberalise their cash outflows instead. (Park and Bae, 2002, p.48)

Prior to the crisis Thailand also realised that their economy is overheating and was threatened with high inflation which made it more difficult to managed their pegged system. Thailand tried to slow down the inflows and credit expansion by trying to “raise the policy rate in March 1995; extended the coverage of the credit plan to include larger finance companies and the BIBF banks; reduced loan-deposit ratios in the cases where the ratio was above average; and stepped up sterilisation operations.” (Ariyoshi, 2000, p.51) In August 1995 Thailand introduced more constraints on banks including requirements to report risk, risk control measures for foreign borrowing and encouraging them to lengthen the maturity of borrowings. Limits on foreign currency positions and a seven percent reserve on specific short term foreign borrowings was created.

These changes only decreased the inflows slightly, but new measures were once again required. Towards the end of the year the inflows began to grow again which some attribute to the decline is the US interest rates. In 1995 April-June new prudential measures - the seven percent reserve requirement covered more institutions such as commercial banks and BIBF and minimum capital requirement for commercial banks for raised. (Ariyoshi, 2000, p.51-2)

3.2.2. Malaysia

Compared to the other East Asian countries Malaysia took a more gradual method of liberalisation and concerns of overheating and exposure resulted in a very cautious development. Malaysian financial system is also bank orientated, modelled after the Anglo-American models. Due to the cautious behaviour, Malaysia was not afraid to re-impose controls or intervene in financial matters. On the other hand Malaysia has been comparatively more open than its neighbours. Ever since 1957, after gaining its independence the capital accounts were fairly liberalised. (Taylor, 2006, p. 232)

FDI was liberalised fairly early in 1968 through the Investment Incentive Act which provided incentives for export orientated investment projects and in 1970 through the New Economic Policy which introduced free-trade zones. Special ownership requirements were present in order to favour
the Bumiputra (Malays). In 1990s this went up to thirty percent of ownership of such companies in 1990s on a national level, but these became more lenient over the years. (Athukorala and Menon, 1996) 1968 was also the year that Malaysia accepted the IMF Article VIII obligations, meaning the removal of restrictions on the current international transactions. (Edwards, 2007, p.532)

Although in comparison Malaysia was considered very open, the mean tariffs tended to increase from mid 1960s, with some fluctuation for the primary products while manufacturing remained low (except for the automobile industry). Regardless of the increase, the tariffs were of moderate levels relative to the world economy standard. (Taylor, 2006, p.233) After the completion of the Uruguay Round on the General Agreement on Tariffs and Trade in 1994, Malaysia lowered the tariffs for primary goods substantially, including textile and wearing apparel. Furthermore Malaysia made special tariff cuts within the Association of South East Asian Nations. (Menon, 2000, p.238)

In 1973 the Malaysian dollar (Ringgit after 1975) was allowed to float for a relatively short period of time. In 1975 Malaysia moved to a pegged system where the Ringgit was determined based on the US and other currencies of the main trading partners of Malaysia. (Bank Negara Malaysia, 2015) The “Kuala Lumpur Stock Exchange (KLSE) was separated from the Stock Exchange of Singapore (SES)” in order to develop it as an independent entity in 1973. From that point forwards, foreigners could thus participate directly in the domestic markets of Malaysia. (Park and Bae, 2002, p.47)

Malaysia had three major liberalisation waves related to capital accounts and foreign exchange - in 1978, 1987 and 1994-1996. Throughout these years Malaysia also re-introduced often temporary capital controls and government intervention was re-introduced at times of economic distress. The administered interest rates were abolished in October 1978, after this point the banks were allowed to calculate the deposit and lending rate independently with some maximum restrictions to special groups. (Bank Negara Malaysia, 2015)

In 1986 Malaysia was experiencing a recession so temporary capital controls were imposed by the Malaysian government. (Menon, 2000, p.240) The country left the recession in 1987 and the prospective growths encouraged more liberalisation in the financial sector. The interest rate was liberalised and determined by the weighted average over the past few months. In 1986 the National Mortgage Association Corporation of Malaysia (Cagamas) was created in order to facilitate and help develop the real estate and long term capital market. (Bank Negara Malaysia, 2015)

Exchange rate measures became more liberalised in 1987 as certain formality thresholds requirements were increased (lowered non-tariff trade barriers). Furthermore, foreign loans could be acquired without approval for up to RM 1 million (from earlier 100,000) and similar threshold for non resident companies applying for domestic loans was increased. (Taylor, 2006, p.235)

In the 1990s, similar to the other East Asian countries Malaysia wanted to be a regional financial centre and thus aimed to eliminate more capital inflow barriers. Similar to Thailand, on October 1, 1990 an Offshore Financial Centre was set up in Labuan which had the benefit of lacking exchange control monitoring for investors. (Khoon, 2007, p.15-16) The facility was very progressive with new technology and even a resort-like atmosphere. In 1990s financial financial institutions such as banks, trust companies and offshore companies. Banks received “exemptions from reserve requirements and foreign exchange controls”, lowered licensing fees and low taxes. Confidentiality
provisions and various formalities were removed or simplified to attract more depositors. (Sarver, 1992)

As the economy began to overheat nearing the East Asian financial crisis the government imposed temporary capital controls in 1994. A ceiling for foreign debt liability was placed on banks, which was removed the following year, and Malaysian securities were restricted from being sold to foreigners. A part of the reasoning was also to limit short-term inflows and “hot money” - speculative, short-term and reversible funds. The restrictions on security sales to foreigners were lifted by the end of 1994. These restrictions were mainly quantitative. (Edwards, 2007, p.559-60)

On December 4th 1994 many more rules and procedures were eliminated or lightened by increasing various thresholds and consequently eliminating the requirements for approval and declaration of loans. Exporting foreigner companies were allowed to keep portion of their revenues without converting it to Ringbit. It also became easier for the central bank to approve Malaysian companies wanting to invest abroad as long as they followed certain criteria. (Taylor, 2006, p.235)

3.2.3. Indonesia

In the Indonesian case the financial development occurred in three majors waves. The first wave started in 1966 with the coming to power of Suharto (or Soeharto) and introduction of the “New Order” plan. During 1966 to 1973, reforms were made in order to bring the state into a form of stability and develop some basic financial structure and recovery of the economy. From 1973 to 1982 was the second stage of development which included more governmental intervention and regulation but also the comparatively early elimination of capital account controls. Finally, 1983 to 1997 (and the financial crisis) was the final waves with the most impactful and general liberalisation of the economy and financial sectors. (Touwen, 2016)

During the first period, Indonesia rejoined the IMF and the World Bank and became open to foreign capital, export lead industry and more flexible exchange rate. (Hamada, 2003) A lot of the developmental influence is attributed to the technocrats who acted as advisors to Suharto and took important positions relating to economy while possessing a western education. (Bhopal, 2013, pp. 27-30) Commercial banks dominated the economy at the beginning but were influenced heavily and subsidised by the government.

During the second stage foreign exchange was abolished and capital accounts outflows were liberalised in 1971. (Pill and Pradhan, 1997, p.10) However many restrictions on foreign borrowings remained and foreigners could not purchase equity in the domestic stock market. (Park and Bae, 2002, p.47) At the same time the economy saw heightened intervention by the government in other aspects. Foreign trade “was very protective and strongly biased towards import substitution.”(Yasin, 1999) The government also set the interest rate for important sectors such as agriculture extremely low while keeping deposit rates relatively high and subsidising the difference through high oil revenue. (Hamada, 2003) The stock exchange was also reopened in 1977 and created specialised institutions in order to develop the capital market but saw little activity due to extensive controls. FDI inflows were mostly aimed at oil and gas industry and others saw little activity until around 1985. (Park and Bae, 2002, p.45)

Generally, the new mechanics and developments were created in order to try and stimulate the financial infrastructure developments but government intervention was till too extensive and
regulations and requirements were still very high. At the same time inflows of foreign capital were being stimulated and savings mobilised which resulted in a generally favourable economic prospects supported by oil revenue. (Noble and Ravenhill, 2000, p.121)

In 1982 the global recession occurred and oil prices fell which compounded with general low saving rates forced Indonesia into a more extensive liberalisation sequence. (Park and Bae, 2002, p. 44) In order try and lower the dependence on oil exports the government devalued the rupiah and went through with many structural economic reforms. In 1983 an extensive interest rate liberalisation was endorsed by the cabinet, bank loan ceilings abolished and special tax on interest earned from foreign-currencies was abolished. In 1984 institutions were set up to support commercial banks with liquidity and issues and various adjustments to bank regulations were conducted in order to smooth operations. (Hamada, 2003, p.11) (McLeod, 1996)

In 1985 Indonesia took accepted the IMF article VIII obligations, thus liberalising the “payments and transfers for current international accounts and develop the foreign exchange market”. Joint venture systems were also introduced for non-residents for securities firms. Similarly foreign banks could set up join ventures with domestic banks. (Park and Bae, 2002, p.47)

In 1988 with the “Paket 27 Oktober 1988 [Pakto]” the requirements for setting up banks and expanding bank branches were liberalised and made much easier, with the precondition for new banks having starting capital and branches having good performance for approximately past 2 years as the only major requirements. This reform package also included certain prudential regulations - various limits preventing banks from overloading to groups and individuals with close ties to the specific bank. In 1989 controls on the bank’s “offshore” borrowings were lifted.

FDI also saw a lot of liberalisation. By 1989 Indonesia switched to a negative list system for FDI inflows, with joint venture requirements (but up to 95 percent foreign ownership was permitted.) By 1994 the minimum limit on FDI on a specific project was also abolished and up to 100 percent foreign ownership was possible in most industries. (Hamada, 2003, p.11-3)

Between 1987 and 1992 the stock market was liberalised through three phases planned by the Ministry of Finance. (Phase I) In 1987 the market prices were allowed to be set naturally by removing the limits for on daily movements. Foreigners were allowed on the market but under strict restrictions such as quota limits on shares. (Phase II) In 1988 regulations were eased up in order to make listing much easier and foreigners were permitted to purchase up to 49 percent shares. (Phase III) In 1990 the Jakarta Stock Exchange was privatised and became self regulating, thus singling to the investors that the government would leave it to natural market forces. The effect on trading and capital inflows was positive. (James and Karoglou, 2010, p.479)

In the 1990s Indonesia also acknowledged that the economy was overheating due the increase in foreign capital and certain premiums and quantitative restrictions were placed the borrowing activities of domestic banks from abroad were implemented in 1991. In 1992 non residents were permitted to purchase up to 49 percent of banks and up to 30 percent of Indonesia firms through equity options. In 1993 foreigners could buy up to 49 percent of equity of a single firms and “quantitative limits on banks’ borrowing from abroad were lifted.”(Park and Bae, 2002, p.487)

Overall the de-regulations were gradual and although they occurred relatively early, and became progressively more impactful making Indonesia more open, the country did take careful steps and
and waited for results before continuing with further reforms. On the other hand, the competing atmosphere, beneficial inflows and the western pressures contributed to increased paces too.

3.2.4. South Korea

The South Korean liberalisation experience was heavily influenced by its government. In 1961 power was seized by General Park Chung-Hee who had wished to industrialise and quickly develop South Korea. The country resorted to a rather repressive financial systems, with high entry barriers and very a centralised and government lead development policy. Investments and projects were chosen and supported by the government and the protectionist approach was used in order to help develop specific sectors without much competition. This encourage the growth, concentration and diversification of the chaebols. The Bank of Korea had no independence and had to obey the Ministry of Finance. (Edwards, 2007, p.487) The state ended up pegging the currency to the US dollar until 1980. In 1970 the country increased economic repression as any small liberalisation policies of the 1960s were reversed, control of commercial banks was increased and the government promoted more “policy-loans” which were heavily subsidised. During the 1960s and 70s the savings were insufficient so the government would direct them to all the priority export orientated industries. (Ito and Krueger, 1996, pp.247-76)

The liberalisation movement started in 1980s, following the assassination of Park. General Doo-Hwan with his military officers came to power and invited the influence of the technocrats (who came from academia or previously worked as economic bureaucrats). Many of these technocrats had a US educations and were influenced by neoliberal ideas and the Washington consensus.(Kwon, 2004) The 1979-1981 were years bringing great shocks on South Korean economies and inspired the Fifth Five-Year plan (1982-86) and the Sixth Five-Year Plan (1987-91) which included some liberalisation of the financial system. During the 1980s liberalisation was very cautious and slow, and the government was giving up their control over the economy extremely hesitantly. (Edwards, 2007, p.488)

Trade liberalisation was seen through a relaxation of tariffs and imports, “The import liberalization ratio rose from 68.6 percent in 1979 to 91.6 percent in 1986. The average nominal tariff rate for all commodities declined from 35.7 percent in 1978 to 18.1 percent by 1988”. The government support and incentive system was made more indirect in an attempt to lower the government’s role.

1981 and 1983 saw the privatisation of commercial banks and entry-barriers for non-bank financial institutions were lowered. Services and activities allowed to be performed by banks have increased including selling “government and public bond under repurchasable agreement” (bonds with commitment to sell them back at a different specified price at a different time). Channels for foreign securities were opened by allowing foreign securities companies in Korea and domestic ones to set up abroad. The exchange rate was now pegged to a basket of currencies; however this was often criticised as the currency weights were not disclosed and even the IMF classified Korea as a managed float. (Ito and Krueger, 1996, pp.235)

1984 also saw the relaxation of FDI, including moving to a negative list system and over the years the list would continuously shorten. In 1986 Korea began the liberalisation for indirect international stock exchange participation. In 1984 the Korean Fund was placed in the York Stock exchange thus allowing the indirect investment approach to the Korean stock market. Similarly in 1987 a Korean Europe Fund was created but was monitored for with a relatively low threshold in order to
discourage inflows. Finally in 1990 the Korea Asian Fund was created. (Edwards, 2007, p.510-17; see also Ito and Krueger, 1996, pp.251)

In 1985 foreign banks had further relaxations of rules while banks in general could set their own interest rates within the allowed ranges. Towards the end of the 1980s due to the growing current account surplus Korea also liberalised more cash outflows and relaxed the regulations of foreign branches of Korean banks. In 1985 the foreign exchange started getting liberalised as swap were allowed and further restrictions would be lowered over the years. In 1987 foreign banks could participate in offshore banking and more foreign banks were approved for entrance to the country. In November 1988 Korea accepted the IMF Article VIII obligations. (Edwards, 2007, p.510-17; see also Kwon, 2004)

As mentioned before, the 1980s liberalisation movement was very slow and many of the new developments were still strictly controlled or even discouraged. Some of the motivations for the 1980s liberalisation are attributed to the US and western pressure which was placed on Korean in order to open their markets. (Kwon, 2004)

According to Marcus Noland for example, much of the strict regulation and repressive alternative financial structures (such as the stock market and bond sale fundings) were employed so that international funding would not undermine the government “policy loans”. He also writes that even though FDI saw liberalisation, the new laws were actually unfavourable to investors (being highly monitored and many industries restricted, requiring minority ownership and even technology transfers) and consequently saw very little FDI inflows until after the reforms following the 1997 Asian Financial crisis. (Edwards, 2007, p.488-9)

Several push factors embarked Korea on a new waves of more serious liberalisation in the 1990s. Firstly, the economy was beginning to see problems in the current accounts as it was experiencing more deficits. Secondly the domestic firms were finding it harder to compete against international competitors and find funding with repressive financial controls and. Finally the US, European nations and the IFIs kept being critical of the Korean financial system for not being of the OECD standard, also noting that artificial regulations could undermine the financial system. With the ending of the sixth Five-Year plan and wanting to join the OECD resulted in a new move to get the country read for the ascension. (Edwards, 2007, p.492) (Park and Bae, 2002, p.43)

In March 1990 the exchange rate was reformed again, as the “market average rate” system was implemented. With this system the Korean won would be determined against the US dollar based on a range average of the previous day making it still somewhat inefficient. The gap for this range was widened over the years building up to the crisis. From January 1992 the Korean stock exchange was more liberalised. Foreigners could buy up to 3 percent of a Korean company per individual as long as the total amount of foreign ownership did not go over 10%. (Ito and Krueger, 1996, pp.236-51)

- In 1991 a four-stage interest rate deregulation was announced (to July 1997). By 1997 “all lending and borrowing rates, except demand deposit rates, were liberalised”.
- In 1993 President Kim Young-Sam announced the five-year liberalisation plan (Chang, Park and Yoo, 1998, p.737-39)
The major aims of this plan was more capital liberalisation and more autonomy to banks and financial institutions. This included the aim to deregulate the interest rate, lower entry barriers to financial institutions. This even included the announcement to terminate all “policy loans” by 1997.

From 1993 to the 1997 financial crisis Korea saw a lot of very impactful new developments in policy, especially in terms of loans and cash flows. For instance, in 1994 various bonds became accessible to international investors at international interest rates. In 1993 residents gained access to invest abroad and in 1995 the ceilings for domestic institutional investors foreign investments were removed. In 1995 foreign commercial loans were required to follow regulations instead of the approval system as previously. Overall there was a heavy bias towards liberalising the short term-loans as opposed to long term. (Chang, Park and Yoo, 1998, p.737-39) By 1997, Korea was successful in abandoning the government practice of allocation of credit to preferred sectors and government control and intervention in the banking sectors. These changes could be seen as rather drastic, distancing from a embedded practice which some believe may created strong shocks and distortions. Furthermore, some believe that abandoning these practices without properly restructuring the highly indebted chaebols may have left a void to be filled by crony capitalism and corruption as the powerful chaebols were left in a liberalised arena.(Chang, Park and Yoo,1998, p. 737-39)

3.2.5. The Philippines

Financial deregulation started in the 1980s for the Philippines. Before this point the country was in a state of very repressive financial environment including “negative deposit rates of interest and rationing and rationing of bank credits”. (Chowdhury, 2003, p.63) Prior to the liberalisation movement, the Philippines had extensive import substitution which resulted in a strong concentrated elite in certain sectors. The banking sector was also very centralised making their preferences towards the larger corporations. (Gupta, 2012, p.103) Investment was prioritised and idealised which according to critics both caused underlying future problems and failed to build a proper long-term capital market. Critics also point out that the elite was able to grow strong through international borrowings (from the World Bank and IMF) and consolidate even more power. A concern is that they managed to guide the financial liberalisation to their benefit. (Lee, 2003, pp. 12-3) The government also had considerable influence in the banking sector including ownership.

On the other hand, the Philippines had also some early developments compared to other East Asian countries. There was a very wide variety of financial institutions, and commercial banks owned fifty-six percent of all assets by 1983. Sixty percent of total outstanding loans belonged to commercial banks in that year with majority being short-term. Bonds existed but mostly in the forms of government securities and most were owned by banks. The rates were below market but they had some incentives such as being valid placeholders for reserves. (Urrutia, 1988, 201-6) In meantime the equity market was not popular (as the loans were often preferential and government supported already) which meant that businesses and their managed would not be “judged” by the equity market.

The liberalisation movements started early in the Philippines as far back as late 1970s but it was very gradual until, under the pressure of the IMF and the World Bank, they accelerated the deregulation of the interest rates in the 1980s. Banks were encouraged to capitalise and grow and special preferential benefits and policies were removed. Many bank quotas remained and the central bank had very considerably large reserves.(Tolentino, 1988) Crisis in international markets in 1981
connected to oil, slowed down and stopped some of the reforms until 1986 when the leadership changed. In 1986 financial liberalisation was continued with the coming to power of President Corazon C. Aquino (1986-1992). At the time the country was facing short-term capital flight, low consumptions and incomes and huge international debt. She turned to the western technocrats, IFIs and financial liberalisation to restore democracy. Foreign debt was repaid and the country enrolled into the IFI’s recovery programs which involved deregulations, especially prioritising policies lowering of tariffs and removing capital controls. (Abinales, 2005, pp.231-40) Her reign was mostly aimed at stabilising and recovery of the economy and restoring the faith of international investors which was successful. Entry barriers for banks and the restrictions for branching were also lowered by 1989. (OECD and Asian Development Bank, 1999, p.95)

The Philippines peso followed a similar evolution as it moved closer towards a market based valuation. Officially, the Philippines introduced a managed float in the 1970s but in practice the currency went through a period of fixed currency rate to the US dollar. It moved to a more flexible currency in 1984. Consequences included an artificially overvalued currency which experienced losses in bursts especially leading towards the 1997 financial crisis. (Houben, 1997)

The following Ramos administration (1992-1998) is credited and associated with the most impactful liberalisation changes. Capital accounts were opened in 1992 including full peso convertibility. On September 8th, 1995 the Philippines accepted the IMF Article VIII obligations thus solidifying the financial liberalisation. (IMF, 1995) Trade barriers were lowered and more sectors opened up to investments and foreign ownership, especially export-based, on the other hand agriculture experienced received more protectionism. (Balisacan and Hill, 2003, pp.18-25) Many imports quotas (but not rice) were eliminated, capital inflows and outflows barriers were removed. Privatisation was encouraged by the government and the Bank of Philippines was restructured and renamed to Bangko Sentral ng Pilipinas (BSP) including absorption of the debt by the government and stimulating it with 10 billion pesos. (Abinales, 2005, pp.244-8)

3.3. East Asian Financial Crisis - Timeline and Brief Summary

This chapter presents a brief factual summary and timeline of the 1997 East Asian financial crisis. Andrew Sheng being close to the crisis himself, presents a very detailed first-hand developments of events and was an inspiration for this section.

The crisis has started in Thailand, Wednesday the 2nd July 1997 as the Bank of Thailand announced floating of the currency. Thailand was forced to float their currency as a result of speculative attacks on the Thai baht. Prior to floating their currency, Thailand just as many others in the region maintained a pegged currency exchange system. Essentially, this meant that the government provided a stable and secure guarantee to always buy the currency at a particular rate. The move to move to a floating system came as a result of speculative attacks which made Thailand unable to hold onto their peg.

Many speculators attacking the currency were originating from Japan (through carry trade and investment) and the strengthening of the Japanese Yen has sent a triggering shock. (Sheng, 2009, pp.21-4) This meant that speculators sold the Thai baht thus putting pressure on the currency and devaluing it. In order to keep up with these attacks the government had to use reserves in balance them out. As the reverses depleted, Thailand had to make policy changes and floated. The contagion effect spread almost immediately to the Philippines, Malaysia and Indonesia (countries considered
less developed than others in the East Asian region). The same day as Thailand, the Philippines also experienced speculative attacks, spending “US$1.58 billion nearly one-eight - of its international reserve in just the first 10 days of July”. On 11 July 1997 the Philippines also floated their currency. (Sheng, 2009, p.24) Both currencies depreciated severely after the float.

The Philippines requested IMF support on 18th July while Indonesia relaxed their currency exchange in order to anticipate the crisis. The next country to be hit by speculative attacks was the Malaysian ringgit on 8th July, “on 14 July, the Malaysian central bank, Bank Negara Malaysia (BNM), opted to allow the ringgit to appreciate against the U. S. dollar but did not request for help from the IMF.” (Sheng, 2009, p.24) As the currencies were being floated, the pressure of speculative attacks and reversals of capitals kept increasing. Thailand joined the Philippines by requesting help from the IMF on 28th July 1997 which resulted in a plan to dramatically restructure the financial sector and reduce government deficits.

Indonesia hit their lowest currency levels on 13th August and also joined the floating currency exchange system. Several weeks later Malaysia introduced some capita control measures while Malaysia, Indonesia and the Philippines all cut down on their investments and expenditure. The trouble in the currency exchange and the reversal of capital was having an adverse effect on both the firms and the banking sector of the affected countries leading them to a financial crisis. By defending the currencies and their pegs the countries depleted their reserves which further lowered the price of assets deteriorating the stock markets.

On 20th August 1997th “the IMF announced a rescue package for Thailand, amounting to around US$ 17 billion of pledges from the IMF (US$4 billion) and other multilateral and bilateral contributors.” (Sheng, 2009, p.24) This pledge and package ends up being a concern of experts analysing the asian crisis as an argument exists that it was too inadequate to cover the reserve problems, and was even less than in the precedent Mexican crisis.

Unlike the countries already affected by the crisis South Korea was considered a much more developed powerhouse so the contagion did not reach it as fast as the other neighbouring states. However in August 1997, South Korea too.

In December 1997 South Korea was heading towards presidential elections which added some political instability and static. Around 1997 several big conglomerates in South Korea were showing signs of troubled financial state. In addition to this, western credit agencies downgraded Korean banks. The events resulted in contagion officially reaching Korea the government was forced to deplete their reserves. Initially secretly, the IMF was officially requested for assistance in late November 1997, in addition to several key financial political figures resigning. (Sheng, 2009, p. 24)

At approximately this point and nearing the end of 1997, the economies have officially entered a full financial crisis. Nearing the end of the year, the deadlines for loans were approaching while downgrading by credit agencies, general contagion the reversal of capital was increasing. Korea began talks with international commercial banks regarding roll-overs. On the 29th of January 1998 an agreement was made to roll-over $60 billion of its debt. (Adelman, 1999) The situation further worsened, Korea ended up closing one third of their merchant banks. Having guaranteed deposits put further pressure on the financial system. “The debt default ratio was 62% in February, as compared to 53% in January and 1.5% in December of 1997, with over 10,000 firms defaulting on

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payments since last December”. South Korea ended up experiencing a recession and restructuring of their financial system. (Adelman, 1999)

3.4. Economic Indicators Before and during the Crisis

This section presents selected economic indicators and statistics to paint a numerical picture regarding the magnitude of the crisis and possible discrepancies leading into the crisis. Since authors end up choosing their own particular set of indexes and sources, this chapter only presents several aggregate results to help better understand the crisis in a holistic manner.

First of all, we have the drastic currency depreciations described in the preceding chapter. A great presentation was gathered by Pablo Bustelo from the Far Eastern Economic Review issues. These can be found in Table 2.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Baht (Thailand)</td>
<td>25.6</td>
<td>36.8</td>
<td>60.2</td>
<td>39.2</td>
</tr>
<tr>
<td>Ringgit (Malaysia)</td>
<td>2.5</td>
<td>3.3</td>
<td>4.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Rupiah (Indonesia)</td>
<td>2.836</td>
<td>3.810</td>
<td>7.350</td>
<td>10.850</td>
</tr>
<tr>
<td>Won (S. Korea)</td>
<td>845</td>
<td>914</td>
<td>1.820</td>
<td>1.384</td>
</tr>
<tr>
<td>Peso (Philippines)</td>
<td>26.3</td>
<td>34.9</td>
<td>41.7</td>
<td>43.8</td>
</tr>
</tbody>
</table>


Evidently, the currencies were both unstable and depreciated in value dramatically. This came as a result of a rather unexpected crisis. On 5th of March 1998, the Economist published an article on the crisis explaining how it was unanticipated but that in retrospect the countries were in fact overheating, the government employed bad policies and the financial system is rather unstable. (Economist, 1998) The western media and analysts were quick to abandon their praise for the ‘Asian Miracle’.

Another telling metric, which becomes the focal point of majority of the experts is the short-term loans prevalence in a market. These are loans with maturities of a year or less, considered more risky and volatile but a safer method for investors. Using the World Bank data a compilation of these can be found in Graph 4. (data for South Korea was unavailable). As we can see short-term loans were growing at a steady pace right up to the crisis in all countries but the Philippines, where there was some fluctuation. After the crisis we see a drastic fall in those loans.

The external debt stocks to gross national income is another metric that shows up the increase in total debt (including IMF credit usage). We see a dramatic spike for each country starting in 1996 and reaching peaks in 1998, with Indonesia leading over 160 percent followed by Thailand almost 100 percent and the Philippines and Malaysia both near 60 percent. Data was unavailable for Korea. See Graph 5.


Graph 6. offers a similar metrics only this time they show the domestic credit. We can see a very steady (with minor fluctuations for Malaysia in the early 1990s) growth nearing 150 percent for Thailand and Indonesia. Indonesia, South Korea and the Philippines peaked at around 60 percent. After the crisis hit the domestic credit decline dramatically.

As a consequence of choosing to float the currency we can see how the inflation rates (which were previously kept in check through reserves and a pegged system) dramatically increased as be seen in Graph 7. It looks like Indonesia stands out in the graphs as the country most worst-off as a consequence of the crisis which is shown in both the inflation and currency, while also experiencing sharp reversals of capital and increase in debt. The Philippines on the other hand was the country experiencing the least troubles except by the “short-term” loan indexes which have been decreasing dramatically over the years of the crisis, mirroring the neighbouring countries.
4. Academic Interpretation of the Crisis - Analytical Results

The following chapter is split into two sections. The first part (4.1.) presents all the experts who provided a general interpretation of the East Asian financial crisis. The second section (4.2.) presents all the authors who have focused only on the case of South Korea during the 1997 crisis or Korea was one of the major case studies of the study. The author’s interpretation of the crisis in addition their citation metric, RePEc ranking (if possible) and date. On occasion, than one article was used for the same author or group of authors. In those cases an average citation metric was taken if the views from the different papers conformed, otherwise a new entry was made. The list of experts here is not ordered based on any criteria.

4.1. General Interpretations

4.1.1. “What caused the Asian currency and financial crisis?”

October 1999 (Revised version, original December 1998)

Giancarlo Corsetti - 357th with a score of 463.19
Paolo Pesenti - 1013th with 1203.39 points
Nouriel Roubini - 880th with 1063.37 points

Web of Science: 166 Citations (170 in all databases)
Google Scholar: 1550 Citations
CitEc: 253 Citations
CiteSeerx: 304 available
This paper stressed the **fundamentals** of the East Asian countries as the major factor responsible for the crisis. The authors explain how the economies had weak structural problems starting from 1995s and their cumulative effect would make the country vulnerable to shocks and speculative attacks (such as the real estate drops and the reversals of capital accounts). They conduct an extensive study to look at various macroeconomic indicators whenever possible to show correlation.

The major structural weaknesses and policy distortions are:

1. **Moral hazard** argument which occurred both at international and the corporate level. At corporate level the companies have been encouraged by governments to invest while also being offered **implicit and explicit guarantees** which gave them confidence to over invest in low profit and risky projects. At the international level the authors accuse international banks of neglecting sound risk assessment. The authors provide investment efficiency ratios as evidence for this. They show that overall the investment efficiency was falling over the last 4 years building up to the crisis in most east asian countries. They also present Korea as the case with clear firm levels investment issues citing the bankruptcies of Chaebols in 1997. (Corsetti et. al., 1999 pp. 317-320) They claim that banks justified such loans by relying on government guarantees and possible IMF bailouts. (Corsetti et. al., 1999, p.308)

2. **Weak and fragile financial infrastructure made weaker by financial liberalisation.** As the bond market was underdeveloped, banks and very under regulated financial intermediaries were responsible for providing loans. Due to a combination of government incentives (such as Thai lowered taxes for offshore banking) and very lax regulations overloading occurred. The financial liberation exaggerated this effect as it became easier for instance credit ceilings being lifted and relaxed entry for financial companies. (Corsetti et. al., 1999, p.332-334)

3. **Composition of debt; too much short-term debt.** The authors find debt structure to be extremely alarming on several accounts. The short-term debt was favoured with most countries going over fifty percent liabilities with maturity up to one year. The overall debt liabilities were far greater than foreign reserve ratios. Finally foreign assets were deteriorating as the banks were lending mostly locally - this acts as a vulnerability when combined with currency exchange issues. (Corsetti et. al., 1999,pp. 340-4) On the opposite spectrum - FDI rates, which would have facilitated more stability, were much lower (except in Malaysia).

4. Too much growth combined with an **investment boom** which lead to lower savings and current account deficits. Authors attribute the high domestic investment rates as a cause of the high growth rates. In other words some of the high GDP and growth rates may have been the results of **unusually high expectations** on return on investments. Similarly, the decrease in saving rates and current account deficit wasn’t a major concern at the time because of the prevalent assumptions of future income being able to cover them.

5. Having **US dollar-pegged currency** resulted in real currency appreciations mimicking the US and possibly even appreciating further because of **expectations of US appreciation**, not to mention strain on reserves. (Corsetti et. al., 1999,pp. 309) Pegging the currency also meant loosing competitiveness on the foreign markets just as the US.

6. **Political instability and indecisiveness in regards to IMF recommendations sent more negative signals towards the investors.** (Corsetti et. al., 1999,pp. 327-8)

On the topic of the IMF intervention and aid during the crisis, the paper takes a neutral-to-positive view.

Corsetti et. al. place importance on the earlier mentioned criteria as the cause; however they have to be considered as a whole package. Only through the cumulation of these weaknesses the crisis was
possible or at least much more likely. Overall the arguments can categorised as being critical not only of the fundamentals but also the governments. Most of the actions of the government are seen as misguided, as encouragements and guarantees have increased the likelihood of the crisis. On the other hand, the government has also failed to focus on building up prudential regulations or enforcing them and curtailing excessive, inefficient growth in a substantial manner.

4.1.2. “The Onset of the East Asian Financial Crisis” (and companion study)

August 1998

Steven Radelet - RePEc ranking unavailable
Jeffrey Sachs - RePEc ranking unavailable

Web of Science: 18 Citations
Google Scholar: 3267 Citations
CitEc: 340 Citations
CiteSeerx: 33 Citations

This paper acknowledges the likely presence of faulty fundamentals in the East Asia but takes the view that the main cause of the crisis was the inherent volatility of the financial markets triggered through shocks and leading to a contagion which was exaggerated through the mistakes made by the governments on the onset of the crisis and “poorly designed international rescue programs”. The East Asian countries had a weak and new financial system which experienced triggering shocks that resulted in a self-fulfilling crisis. They claim that fundamentals alone cannot explain the sharp financial reversals but are still needed as a pre-requirement for the crisis. (Radelet and Sachs, 1998a, pp.15-7) The paper also directs us to a “companion study” by the same authors with very similar citation numbers in CitEc but less reliable data in the other citation systems, so it will be used to complement the ideas and views of this research. (Radelet and Sachs , 1998b)

Special attention is payed to capital inflows. The authors agree that they can be a positive engine for growth but when they are “large, volatile, unsustainable, and/or poorly utilized” they place pressure on a young financial system. This pressure appreciates the real exchange rate and often expands nontradeable sectors and increases the likelihood of poor and even fraudulent choices when there is too much capital to handle. (Radelet and Sachs, 1998a, p.16)

The authors use the fact that the crisis was unexpected to support their view that the cause was a sudden shift in expectations. Even credit rating agencies did not downgrade the countries until after the crisis, while the IMF did not signal any concern through their reports. Instead, only further encouragements for more openness and a more flexible exchange rate were provided. (Radelet and Sachs, 1998a, p. 21) The authors downplay the current accounts deficits comparing them to the earlier crisis in Latin America and only accepting that although they were in need of corrections but could not cause the crisis alone.

The companion paper raises the important concept of insolvency versus illiquidity. Explaining that even though the crisis caused the countries to become illiquid (as most are during financial crises), the countries are still capable of repaying loans now and in the near future. Illiquid meaning that even though countries cannot service current debts they are capable of repaying full loans in the future from investment incomes. (Radelet and Sachs , 1998b)

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2 Being insolvent meaning that the countries are incapable of repaying loans now or in the near future. Illiquid meaning that even though countries cannot service current debts they are capable of repaying full loans in the future from investment incomes. (Radelet and Sachs , 1998b)
troubles) the fundamentals weren’t bad enough to signify insolvency justify the overreaction. This was caused by a collective action of the investors. (Radelet and Sachs, 1998b, p.5) The authors focus on vulnerabilities which are capable of directly singling the investors. One of the major vulnerabilities according to them was the fragility of the financial systems. It is important to note, that the authors state that “the weaknesses of the financial systems were widely recognised and discussed, both in and out of official circles.” Financial liberalisation further increased the fragility while the negative debt composition was an outcome. Strong bias towards short-term debt, which by itself is dangerous, was combined with loans borrowed from international lenders and in the form of US denominated currency. Any shocks to the local currency would be directly linked to the well-being of the loans.

These are seen only as vulnerabilities which have to be set off by shocks. Once a crisis ensures then these vulnerabilities facilitate the spread of panic as investors recognise these arrangement and understand the risk of panic (especially considering the loans to foreign reserves ratios). The authors claim that multiple equilibria were present in this situation; if the loans were serviced by, for instance, new loans then the future investment income would be able to cover them both. Instead if the investors panic they reverse their capital similar to a bank run, each acting rationally trying to race for the funds which leads to contagion and self-fulfilling crisis.

The authors are very critical of the IMF interventions explaining at lengths how they only contributed towards sending negative messages to the investor community and thus aiding the self-fulfilling prophecy. The companion study mentions five features of the IMF intervention which contributed to the crisis. 1. The IMF itself coming to aid is regarded as a negative signal; 2. The IMF officially describes the troubles with the economy, especially casting a shadow on the fundamentals; 3. IMF wanted to radically restructure the financial structure over a short period of time; 4. The IMF advised recommended contraction using both monetary and fiscal policy which according to the authors was contradictory to the needs; 5. The IMF promised to provide large sums which weren’t delivered or weren’t readily available. (Radelet and Sachs, 1998b, pp.33-8) Radelet and Sachs blame the IMF for further worsening the situation and causing more unnecessary panic through their contingency based aid.

Thus the major causes can be summarised as:

1. **Inherent nature of financial markets makes them vulnerable.** Investors acting as individuals may react to financial news or distortions in a drastic manner by panicking. News may signal weaknesses but may not necessarily be justified by fundamentals. The crisis becomes self-fulfilling meaning that an alternative scenario was possible without the crisis had the investors not reversed their inflows. The spread of the crisis is facilitated through a contagion.

2. **The countries had certain vulnerabilities to crisis which got worse with financial liberalisation.** Amongst the most important ones were the **debt composition and debt currency mismatch.** Deregulation outpacing development of prudential regulation. The authors are skeptical about the degree of moral hazard arguments and only conceding that some loans may have lost efficiency due to diminishing returns in relation to huge inflows.

3. **Large capital inflows** placed a lot of pressure on the new financial system. This forced banks to utilise more capital than they were capable of (diminishing returns, deteriorating risk assessment). And real exchange rate appreciated which may have expanded nontradeables and lowered the competitiveness of exports.
4. **Triggering shocks were experienced.** Failures in the financial companies in Thailand and deteriorating health of the corporate sector in Korea. Political uneasiness and instability. Sharp appreciation of the US dollar has been another trigger since it was directly linked to the currencies of the East Asian countries. (Radelet and Sachs, 1998b, p.20)

5. **IMF interventions** acted as shocks as the drastic recommendations spooked investors. (Radelet and Sachs, 1998a, pp.33-4)

The most important take-home point from Radelet and Sachs was that even though the fundamentals weren’t perfect, they weren’t enough - the true culprit was the volatile nature of the global financial system prone to shocks overreaction to a set of vulnerabilities.

### 4.1.3. Paul R. Krugman

**Paul R. Krugman** - 33st with a score of 54.58

Krugman has proposed several explanations and took varying positions in regards to the crisis over the years. We will focus on two of his more popular interpretations. This includes his second view of the causes blaming **moral hazard** expressed in “What happened to Asia?” and his following interpretation that became more nuanced as it explored **third generation crisis models** as expressed in the paper titles “Balance Sheets, the Transfer Problem and Financial Crisis”.

**Part I - “What happened to Asia?”**

*January 1998*

**Web of Science:** 5 Citations  
**Google Scholar:** 1809  
**CitEc:** 337 Citations  
**CiteSeerx:** 88

Krugman’s second assessment of the crisis was chosen for the study as it was a little more focused and was supported by better citation results. In this paper Krugman distances himself from the first assessment explaining that the the crisis was different from the traditions **first-generation** and **second-generation models** of currency crises. (Krugman, 1998)

According to Krugman the main cause of the crisis was **moral hazard**. He elaborates the phenomenon explaining how financial intermediaries were responsible. Krugman explains how during the building up to the financial crisis, while the East Asian states did not have too many explicit guarantees, the investors were under the impression that their funds were guaranteed. The connection of banks and financial companies to governments further supported this and finally, some actually had explicit protection such as Thai depositors.

Krugman uses **explicit and implicit liability guarantees** as the crux for his argumentation. Investors now assume that when investments fail the cost will be socialised. Following this logic they invest into riskier projects with higher returns. Normally, considering the risks, these projects would have lower returns but since in the case of a bust the costs are non existent the risk is incentivised, this way the **moral hazard** argumentation is explained through banks. (Krugman, 1998)
Krugman argues that globalisation was a prerequisite for this behaviour as capital can only accumulate in this manner. A closed-off country would have experienced an increase in interest rates.

Finally the simplified model proposed by Krugman (which he acknowledges to be basic and preliminary) links these actions to a financial crisis though a financial bubble. As the investors are motivated by the best possible outcomes, or pangloss value as Krugman dubs it, they outbid each other while guarantees cause the prices to rise. Once the guarantee ends or even enough noise exists to give them that idea the bubble bursts.

Summary of major influencing factors:

- Moral Hazard by intermediary financial companies
- Caused by governmental guarantees (both explicit and implicit)
- Globalisation made funds available to the investors
- Large capital inflows. The international investors are also blamed as have the responsibility to properly risk assess.

Part II: “Balance Sheets, the Transfer Problem, and Financial Crises.”

Later Krugman’s focus and assessment of the crisis shifted as he started to envision and argue for a third-generation crisis model. Krugman echoes these ideas in 2014 in one of his papers, which discusses the 2008 global financial crisis. (Krugman, 2014) For this study we will be looking at the original study which focused solely on the developing of the third generation crisis model as it also revolved around the East Asian financial crisis.

1999

Web of Science: 104 Citations
Google Scholar: 1401 citations
CitEc: 429 citations
CiteSeerx: 227 citations

Here Krugman explains that he grew more skeptical of his earlier assessment relying on moral hazard, nor does he agree that the Diamond and Dybvig explanations capturing the entire set of causes. Instead he proposes the new, third generation. (Krugman, 1999, p.460) This models focuses on the balance sheets belonging to companies and describing the ability to invest and the effect of capital inflows on the currency exchange.

First of all Krugman downplays moral hazard explaining that there existed plenty of loans which were not guaranteed or protected meaning it couldn’t explain an entire country falling into crisis, he also claims that many bad loans were the consequence of the crisis not cause. Krugman downplays the Diamond-Dybvig model, questioning the destruction of physical investment due to premature terminations.

For his model to work Krugman presumes three theories: multiple equilibria (and thus the self-fulfilling prophecy) which are supported by financial fragility models. (Krugman, 1999, p.463) The second point of his model requires the acceptance of the transfer problem which looks at how
the reversals of capital simultaneously has an effect on the currency exchange and thus effects the terms of trade. Finally, he wants to look at company’s balance sheets and how external factors, especially the currency exchange, can deteriorate them. (Krugman, 1999, p.463-4)

Krugman ties in the transfer problem together with investors analysis of company’s balance sheets. If investors suddenly lose confidence due to any number of reasons and change the overall investments behaviour by reversing capital accounts, the currency exchange and consequently the terms of trade are also directly affected. This means that it also has a negative affect on the local company’s balance sheets and wealth as the foreign debt is leveraged against local currency. The company’s ability to borrow depends on the investor’s assessment of the company’s wealth giving us this loop with multiple equilibriums. Interestingly, stabilising the exchange rate would manifest the problems elsewhere for instance through decline in output. (Krugman, 1999, p.469)

Summary of factors:

- This approach focuses directly on the companies and their balance sheets.
- Inherent fragility of the financial system based on third-generation. Loss of investors confidence and reversals of capitals also changes the currency value. Self-fulfilling crisis, multiple equilibrium and contagion. Transfer problem.
- Currency-debt mismatch. Depreciated currency deteriorates the wealth of companies and their balance sheets due to collateral being local against foreign liabilities.
- Vulnerabilities: High leverage, low marginal propensity to import and large-foreign currency debt relative to exports. (Krugman, 1999, p.468)


June 1998

Web of Science: 2 Citations (for equivalent study)
Google Scholar: Book version: 951 and 208 for different versions.
CitEc: 221 citations
CiteSeerx: 5 for co-authored.

Morris Goldstein - 1174th with 1368.45

Morris Goldstein has written a Policy Brief for Peterson Institute for International Economics (PIIE) in Mach 1998 (Goldstein, 1998a), later co-authored a more expanded research paper in May 1998, followed by a cumulative study on the Asian crisis in the form of a book published by PIIE in June 1998. (Goldstein, 1998b) Each of his studies has very similar analysis and conclusions but only the last cumulative study will be analysed because it was the latest and provided the best citation results.

Goldstein interprets the crisis as a result of three major interlinked clusters of causes. The first one is the financial sector weakness. Here Goldstein explains that the crisis was vulnerable to speculative attacks due to a credit boom mixed with bad loan compositions - “too much of their foreign borrowing was undertaken at short maturities and/or denominated in foreign currency.”(Goldstein, 1998b, p.9) In turn these were caused by a series of weaknesses in the
financial sector including **crony capitalism**. Goldstein accuses banks of “connected lending” which meant that they bypassed proper risk assessment and concentrated risk. Goldstein also notes that the emerging markets had lax regulations and implicit and explicit guarantees further added to the risks. Further, he notes **low transparency and public disclosure** as contributing factors.

The push factors for the credit was the state of the international market. Large funds have just rebounded after the Mexican crisis and East Asia was seen as the new hotspot for investment. Japan’s extremely low interest rates encouraged and facilitated trading and most of the countries in the region where promoting themselves as the next financial hub. (Goldstein, 1998b, pp.12-4)

The second set of causes that Goldstein identities are **external sector problems**. Here Goldstein focuses on the current account deficit which he translates into the capital inflows. He explains that analysts defending these deficits claimed that they would be covered by future investments yet he proposes five ways in which they were vulnerable: 1. He questions the **quality of loans** (accusing countries of speculative investment); 2. **real exchange rate was deteriorating the countries competitiveness** for exports; 3. 1996 was a year of “**slowdown in merchandise exports receipts**”; 4. **competition** for exports coming from China; and 5. **overproduction** in certain export based industries and **competition amongst each other**. (Goldstein, 1998b, pp.14-7)

Finally, the last cause that Goldstein examines is “**contagion**”. Goldstein sees this occurring primarily through two channels. The first one is the **“wake up call” hypothesis** in regards to Thailand. He explains that as Thailand experienced problems and starting to undergo elements of the crisis, investors started to quickly re-assessing risks for the neighbouring countries and finding similar elements. The second channel is the **currency devaluation**, as one state experienced currency devaluation it also experienced improvements in the terms of trade meaning that it becomes more competitive against the neighbouring countries (especially in third-world markets). (Goldstein, 1998b, pp.19-20)

In conclusion Goldstein’s position on the causes are summarised as: (His primary point will be split up)

1. **Vulnerable financial system** mostly caused by **crony capitalism** and **moral hazard**. Including loan composition (currency + maturity), preferential loans, lax regulations and low transparency.
2. **Large inflows of capital** - East Asian countries were seen as very attractive investment locations and large capital funds have just rebounded from the Mexican crisis. Also interest rates were low, including in Japan and the countries were promoting themselves.
3. **Curren Account Deficit** - Meaning that countries had increasing liabilities which had to be covered by investment future income. Goldstein see this as a problem due to **bad quality of loans, deteriorating currency exchange and increasing competition** (from China and amongst each other) which had a negative effect on the performance of these loans.
4. **Contagion** - happened through the “wake up call” hypothesis and currency devaluation, improving the terms of trade thus making even untouched countries less competitive.

**4.1.5. Roberto Chang and Andrés Velasco**

**Roberto Chang** - 1009th with 1198.86 points  
**Andrés Velasco** - RePEc ranking unavailable
Both of these authors have co-authored multiple studies exploring the causes of currency crisis in emerging markets. Their ideas have developed through several similar paper versions focusing on the illiquidity crisis manifesting in the revised paper “A model of financial Crises in Emerging Markets”, written in 2001. That model will be presented in tandem with a more specialised paper focusing and applying the model to East Asia in “The Asian liquidity crisis”.


May 2001

Web of Science: 109 Citations
Google Scholar: 607 Citations
CitEc: 214 Citations
CiteSeerx: 34 Citations

Here the authors are suggesting a third-generation model in order to explain the crisis that occurred in East Asia and previously in Latin America. Their interpretation expands the Diamond and Dybvig model as they build around a similar arrangement but add the additional perspectives of the open economy. (1983)

At the heart of the model and the cause of the crisis is international illiquidity. Just as the original Diamond and Dybvig model, banks are responsible for receiving liquid fundings which they allocate into illiquid projects in order to increase welfare, spreading and diminishing investment risk but risking the creation of a self-fulfilling crisis. (Chang and Velasco, 2001, pp.489-90) Chang and Velasco model this with international factors in mind, focusing on emerging markets. Their motivation for this is based on emerging markets relying more on banks and finding it harder to receive emergency funding during a depositor run while mature markets do not experience such problems or high reliance. Throughout the paper they simplify each stakeholder’s role to show how and why a bank run would be possible due to the game theory aspect of depositor’s withdrawal method. They find that pre-requisite for these occurrences are financial fragility and illiquidity.

The authors state that foreign creditors work in similar ways. Looking specifically at the willingness to provide new loans and maturity structure of external debt (stating that both of these affect financial fragility). The first point shows how the lack of additional loans could further worsen the situation as banks have to resort to selling illiquid resources. Secondly it shows how the confidence of the foreign creditors regarding these additional loans can resort in a local bank run due to self-fulfilling prophecy. The maturity structure revolves around the willingness of foreign investors to roll-over their debt. As before, due to the pessimistic and Nash equilibrium arrangements of the investors which makes them likely to decline a roll-over thus self-fulfilling the crisis thus meaning that short-term loans further increase risk. The authors also find that both higher credit ceiling and more capital inflows increase risk of a crisis. According to their model financial liberalisation increases the risk of a depositor run as competitive banks owe more to their depositors compared to monopoly, but at the same time financial liberalisation also increases the welfare and allocation of funds in a country. (Chang and Velasco, 2001, pp.489-517) They also attribute real estate bubble bursts to the bank runs with the logic that after a run the prices fall below the fundamental price as they weren’t completed physically. The authors also agree that bad policies and economic shocks can causes a crisis, but only by deteriorating reserves meant to
mitigate illiquidity issues, in meantime investment distortions and moral hazard is something they
don’t agree with. According to their research the non performing loans are a result of non efficient
liquidation.

Part II: “The Asia Liquidity Crisis” - Application to Asia

The previous paper laid out the model of the authors attempts to explain crisis in emerging markets.
In the following paper they applied the model to the 1997 Asian Crisis and have come up with
various contributing factors. These will be discussed, after which a conclusion synthesising the
causes from both papers will be summarised.

November 1998

Web of Science: Not available
Google Scholar: 430
CiteSeerx: 24 Citations

The authors note that the Asian crisis has five major distinguishing qualities: 1. illiquidity crisis as
the ‘engine’ for crisis; 2. recent financial liberalisation; 3. bad policy (but not money-financed
deficits); 4. collapse of the fixed exchange rate (with speculative attacks) and 5. small
vulnerabilities and mistakes which are magnified into extensive crisis. (Chang and Velasco,1998)

The assessment of the crisis by these authors finds that inappropriate policies (especially financial
liberalisation) worsened the financial system by making it more fragile. These fragilities made the
occurrence of a illiquidity crisis possible. Panic engrossed international investors which further
increased the effects of the crisis.

The authors do not believe that the usual fundamentals were at fault in the crisis. They defend this
by claiming that most of the Asean-5 countries had very prudent fiscal policies and took action to
slow down overheating. They also said that public debt to GDP was very low, monetary growth was
controlled and international reserves were growing. (Chang and Velasco,1998, pp.12-4)

They explain that international illiquidity is at the heart of the problem in the East Asian crisis
defining it as “potential short term obligations in foreign currency exceed the amount of foreign
currency it can have access to on short notice.” (Chang and Velasco,1998, p.18) Authors also note
that since banks are competitive they will tend to maximise their profits which they need in order to
cover depositor’s gains by investing into long-term projects. The authors find that in both cases,
short term debt was growing faster than reserves and liquid international assets, even compared to
the Latin American countries during their crisis which were smaller and more stable.

Financial liberalisation aimed to remove financial repression and move towards a more market
orientated model. This introduced several elements that lower liquidity - lower reserve
requirements, promotion of competition and ease of entry (as banks are thus forced to provide
better margins to depositors thus increasing illiquidity risks), relaxed regulations, lower interest
rates and liberalised capital controls. Increase in short term capital inflows was another factor
which the authors attribute to several possible hypothesis including financial liberalisation,
increase in total capital meaning increase in short term debt, wishful thinking of asian borrowers and a worldwide trend towards short term capital.

As a conclusion the main causes of the crisis that we can summarise are:

1. **Series of vulnerabilities** made the Asian countries susceptible to a illiquidity crisis, focusing on the banking sector
   1. Illiquidity issues
   2. Financial liberalisation weakens safeguards against illiquidity
   3. Increase in short term capital inflows
   4. Increase in foreign currency debt
   5. Fixed exchange rate
2. Vulnerabilities lead to the international illiquidity of the East Asian countries due to the ever growing currency mismatch and debt composition mismatch. Further evidence is seen in short term debt outgrowing reserves and outgrowing liquid international assets.
3. The crisis unfolds after depositors or investors start to reverse their capitals. After a sudden shift in expectations a self-fulfilling crisis run on capital occurs, instead of offering companies the ability roll-over or options of lenders of last resort which could salvage unfinished long-term projects.

4.1.6. “Lessons from the Asian Financial Crisis”

*April 1999*

Frederic Mishkin - 89th with 128.74 points

Web of Science: Not available
Google Scholar: 531 Citations
CitEc: 163
CiteSeerx: 75 Citations

Mishkin uses the asymmetric model to describe the Asian financial crisis and leans towards fundamentals being responsible. On the other hand he doesn’t rule out multiple equilibria, panic and illiquidity causes. Mishkin also states that this is the asymmetric information view of the crisis implying thus elements of moral hazard and adverse selection in this study. (Mishkin, 1999)

Deterioration of balance sheets is an important factor fuelled by financial liberalisation which perpetuated the investment boom. Mishkin identifies two reasons for over-investment - banking lacked expertise for risk assessment and was not able to keep up with the growing financial growth (lacked the correct financial standards, protocol and well-trained staff). The second reason was the lack of regulatory or supervisory systems, including implicit guarantees which perpetuated moral hazard. Mishkin explains that as the region experienced more liberalisation and expansion of credit, the regulatory and supervisory roles and institutions just couldn’t keep up with these developments. Mishkin believes that deterioration of banking balance sheets was the key push factors into a crisis.

This meant that banks could either restrict their lending, or become unable to issue loans if they were forced into illiquidity. Mishkin argues that defending the currency from speculative attacks
would further weaken the banking sector as interest rates would rise. Further, recognising these weaknesses, speculative attacks are even more likely due to self-fulfilling prophecies.

Mishkin explains that due to the short-term debt bias and currency mismatch, three separate mechanisms enter into play which all contribute towards increasing asymmetric information problems and lead to a crisis. 1. Currency devaluation means that foreign debt increases while local assets weaken as collateral; 2. Devaluation may lead to inflation against which, Mishkin believes, the states have less credibility from past experiences (thus increasing further expected inflation) that in turn disrupts companies’ ability to pay back loans as interest rates rise; and 3. synthesis of these phenomenon leads to a banking crisis as liabilities increase, assets decrease and large proportions of the debt is short-term. (Mishkin, 1999)

As a conclusion the main causes of the crisis that we can summarise are:

1. Financial liberalisation and credit growth and expansion outpaced regulatory or supervisory system which lead to over investment and moral hazard and adverse selection.
2. These problems manifested by deteriorating banking sector balance sheets leading to key fundamental weakness especially in the banking sector.
3. Banking sector weaknesses and multiple equilibrium leads to currency crisis

Asymmetric problems worsens through three mechanisms:
- Currency devaluation puts pressure on banks due to currency mismatch
- Devaluation may lead to inflation putting pressure on assets and companies’ balance sheets
- Combination of earlier mentioned phenomenon leads to a banking crisis.

4.1.7. “The Asian Model, the Miracle, the Crisis, and the Fund”

1998

Jeffrey Alexander Frankel - 36th with 62.1 points

Web of Science: 1 Citation
Google Scholar: 86 Citations
CitEc: 18 Citations
CiteSeerx: 5

Frankel starts off by agreeing that large capital inflows and growing current account deficit and macroeconomic policy mistakes played a role in the crisis, but he believes that they weren’t the leading causes. He explains that the more important indicators are the way that funds have been used and allocated which was in short-term loans and foreign-denominated currency loans being preferred allocation.

He examines and blames the financial structure as the cause for these developments. Within it, Frankel puts the most blame on the occurrences of moral hazard and crony capitalism. Relationships and connected banking results in collusive lending on preferential basis. This all leads to over-lending and over-investing and highly leveraged financial system. He believes the countries focused more on maximising quantity, sales and numbers instead of profits and price of stock.
Further, some sectors were overdeveloped because of the preferential investment methods. (Frankel, 1998)

On the other hand, Frankel also acknowledges the recent high praise for East Asia and agrees that one should be cautious with criticism. For example, he reminds us that the Asian nations were able to industrialise extremely quickly compared to the western states. This leads to another derived possible cause - convergence. Here he states that perhaps high leverage and risk was worth it and sustainable as long as the high growth rates were present, but as the countries were catching up with western counterparts the gap that was allowing them to profit was also decreases in addition to diminishing returns. (Frankel, 1998)

As a conclusion the main causes of the crisis that we can summarise are:

1. Financial structure and fundamentals are at the centre of the crisis. Mainly moral hazard and crony capitalism that lead to high leverage and overdevelopment in addition to risky investments and non performing loans.
2. This lead to a foundation made up of short-term loans and foreign-denominated currency loans.
3. Large capital inflows and growing currency account deficit played a lesser role
4. Convergence - may be another explanation. As the nations were catching up to the west their competitive qualities were diminishing also making the highly risky arrangement more volatile.

4.1.8. “Yes, "It" Did Happen Again - A Minsky Crisis Happened in Asia”

1998

Jan Kregel - 2142th with 2038.79 points

Web of Science: 1 Citation
Google Scholar: 184 Citations
CitEc: 23 Citations
CiteSeerx: 9 Citations

Kregel has conducted several studies in a short-time span. The citation results were not great, the best one was chosen which also offers an unique approach, the Hyman Minsky model.

Kregel believes that the East Asian financial crisis was caused by debt deflation. Kregel explains that Minsky wanted a “Big government” to offer a guaranteed safety net, which would make the financial system more stable. Instead “crony capitalism” and small governments were not able to keep the financial system stable. Furthermore, since the loans were denominated in foreign currency, the aid the government could provide was limited by foreign reserves. (Kregel, 1998)

Kregel explains how the ability to gather loans has a positive effect on the value of collateral due to future expectations of investors. The Minsky model almost mirrors the illiquidity versus insolvency and moral hazard models.

Kregel explains how companies, in addition to their obligations, have a safety cushions. Firm “that is expected to meet its payments with 99% probability” is a firm that doesn’t need to borrow. Some
firms have lower safety nets meaning that during certain periods they won’t be able to meet their obligations. However, over the entire period of the project, especially if aided with additional loans they would cover the period and the loan using their overall safety net. In other words, the risk and cost of the loan is spread out over a long period of time are speculative positions in a minsky model. Firms who have no safety net and have a high probability of shortage, are called ponzi financing and should be avoided by banks at all costs. Within a closed economy, companies would be susceptible to two possible shocks - rise in interest prices (which would lower sales and at the same time increase liabilities) and through currency devaluations as long as the company was involved in a lot of foreign transactions.

In a way the Minsky model is a middle ground between moral hazard and fundamentals as the original investments have been risky but justified and only shifted to non performing post shock. If previously speculative positions deteriorate to ponzi-financing as a result of these shocks, the banks will be forced to deny most roll-overs. (Kregel, 1998)

A secondary source of shocks is endogenous. Kregel and Minsky explain this as over-optimism which occurs during stable and growth periods and eventually diminishes the risk assessment severity. Riskier projects gets financed and supply increases. Eventually the supply outpaces the demand and as the companies struggle to sell and start correcting their portfolios, the bubble burst which leads to crisis.

Kregel explains that a combination of financial liberalisation and Japanese extremely low currency devaluation drove large capital inflows into the East Asian countries, especially since they had better interest rates and stronger currency. This lead to a period of stability and growth, thus allowing the endogenous vulnerability to spread through the financial system.

A combination of false recovery and Chinese rising competitiveness briefly strengthened the Japanese currency and some capital was reversed - this deteriorated the safety nets and exposed fragility.

The western community re-assessed their risk and the Thai baht experienced speculative shocks which it could only defend up to a point. After that the currency deteriorated also driving up interest rates. As the Minsky model explained before, this resulted in many companies losing more safety nets and deteriorating to ponzi scheme level.

As a conclusion the main causes of the crisis that we can summarise are (chronologically):

1. The Asian Financial crisis is a Minsky crisis and involves debt deflation. This is because a strong government and a strong central bank willing to intervene were absent.
2. Japanese slump and financial liberalisation strengthened East Asian positions leading to a period of growth and stability.
3. Endogenous vulnerability spread through the financial system due to a period of growth and stability. Expectations became too optimistic thus downplaying the safety nets.
4. Chinese competitiveness and Japanese false recovery sent shocks through the East Asian financial systems
5. Speculative attacks depleted reserves until currencies deteriorated. Interest rates also rose. Demand for products fell.
6. Companies experienced pressures pushing many into ponzi-financing
1. Lower demands for products
2. More liability obligations due to rising interest rates
3. Over-saturated supply due to earlier optimism

4.1.9. “Asset Bubbles, Leverage and 'Lifeboats': Elements of the East Asian Crisis”

February 1998 (First Draft)
January 2000

Note: Earlier version titled: “Asset Bubbles, Domino Effects and ‘Lifeboats’: Elements of the East Asian Crisis”

Hali J. Edison - 1193rd with 1388.77 points
Marcus Hay Miller - 1229th with 1430.23 points
Pongsak Luangaram - RePEc ranking unavailable

Web of Science: 12 Citations
Google Scholar: 73 Citations
CitEc: 44 Citations
CiteSeerx: 4

The chosen study was chosen from a pool of several revisions and varying papers with a very similar main themes and hypotheses. The last known revision of the paper was chosen for analysis while.

The studies utilise a model created by Kiyotaki and Moore, in order to explain how the crisis occurred from the perspective of asset bubble and the relationship between property and land as collateral, with highly leveraged firms who depend on it for fundings. (Kiyotaki and Moore, 1997)

In their model, credit-constraint companies carry the risk of repudiation, meaning that the ones with the most collateral will be the ones who can acquire most loans as they offer the most safety against repudiation. This also means it is in the best interest of companies to acquire more assets - leading to an asset bubble. During times of productivity shocks, positive gains are amplified as companies receive an ‘indirect’ advantage through the rise in land prices (thus increasing their collateral and borrowing capabilities). The model is further compounded as margin requirements are introduced (with the motivation to counter unexpected shocks and possible fees) - as the margin increases it slows profits and increases amount of land holdings.

The authors argue that a shock in the form of asset bubble burst or currency devaluations meaning that land prices plummet. As land and property was used for collateral, it is unable cover the loans as it could before. First margins start paying for loans, which ends up deteriorating the stock of local companies, consequently leading to bankruptcy. (Edison, Miller and Luangaram, 2000)

Furthermore, they argue that as the marginal rates differed amongst companies, some were highly leveraged while others were more prudent. However due to the contagion, the authors describe a presence of a “domino effect”. The highly leveraged firms liquidate theirs assets thus lowering the overall asset market prices, which consequently has an effect on the prudent firms too as their collateral gets damaged in the process too.
As a conclusion the main causes of the crisis that we can summarise are:

1. **Pegged exchange rate, over heating economy** and financial liberalisation with lax regulations meant very large capital inflows.
2. Investment boom leading to an excessive risk buildup in the form of foreign currency denominated liabilities.
3. Companies in the affected countries borrowed against collateral which - real estate. The more collateral they had, the more they could borrow which further fuelled the investment boom.
4. Real estate prices surged and developed into a bubble. Positive outlooks and optimism further encouraged lending and possibly moral hazard.
5. Speculative attacks on the currency and bursting of asset bubble - caused asset prices to plummet.
6. As assets represented collateral, highly leveraged firms could not meet obligations while stock of prudential firms deteriorated. Capital was reversed en mass by foreign lenders,
7. Through contagion and domino effects due to the overall market prices of assets further falling causing the prudential firms to face same fate as highly leveraged ones and due to reversal of capital.

4.1.10. The Insurance Model as an Explanation

“Latin America and East Asia in the Context of an Insurance Model of Currency Crises”

*April 1999*

Menzie D. Chinn - 287th with 379.18 points  
Michael P. Dooley - 782nd with 945.84 points  
Sona Shrestha - RePEc ranking unavailable

Web of Science: 14 Citations  
Google Scholar: 73 Citations  
CitEc: 40 Citations  
CiteSeerx: 41 Citations

“A Model of Crises in Emerging Markets”

*2000*

Michael P. Dooley - 782nd with 945.84 points

Web of Science: 69 Citations  
Google Scholar: 209 Citations  
CitEc: 40 Citations  
CiteSeerx: 74 Citations

Dooley set out to analyse the 1990s financial crisis in the form of a first generation model with the addition of his own criteria. This means that he attributed the causes to the fundamentals, yet he also describes an anticipation sequence which assumes that investors understand fundamental
weaknesses and their consequences, thus being capable of ‘forcing hand’ of the crisis/government currency exchange earlier. Unlike multiple equilibria or self-fulfilling prophecies, Dooley’s model is a ‘perfect foresight meaning’ that once conditions are met the outcome is inevitable. (Dooley, 2000, p.257) In addition, in this model crisis must always be preceded by large capital inflows.

He developed his model over several paper iterations while also co-authoring a study, with Menzie D. Chinn and Sona Shrestha, specifically focused on the difference between the East Asian crisis and the Latin American crisis.

The model can be categorised as a first-generation financial crisis explanation. It involves the interplay between two major conflicting sides which are the government’s decision to hold reserve assets for self-insurance but also use it to provide insurance to residents for financial liabilities. As the reserve acts as government’s personal insurance and insurance for domestic investments it makes it a single policy with two objectives. As there is domestic insurance this raises the prices of those loans because public competes for them. More capital flows into the country until the liabilities match the government reserves, after which point the domestic investments become less attractive and investors hurry to sell as the reserve would be unable to accommodate all loans. This ends up exhausting the government reserve and leads to a crisis. (Chinn, Dooley and Shrestha, 1999, pp.2-5) Another point of interest is that the crisis is a repeating cycle and unless policy is altered, the cycles will once again repeat itself as the government resumed accumulating assets and will eventually once against face speculative attacks.

The model also states that three criteria must be present for this to work: 1. credit constraint government with net positive assets; 2. government must be credible in its commitment to mobilise these assets; and 3. international investors need “access to transactions that produce injured losses”. (Chinn, Dooley and Shrestha, 1999, p.6)

Financial liberalisation is another contributing factor to this arrangement as it made domestic liabilities available to international investors and made the regulations more relaxed and less effective. Essentially it fulfilled the requirements of the insurance model. Furthermore, “Liberalization provided an insurance pool because […] creditor governments and international organizations have provided generous lines of credit to support reform programs”. (Chinn, Dooley and Shrestha, 1999, p.9) The global interest rates, especially the dollar devaluations are other push factors helping governments accumulate more assets.

As a conclusion the main causes of the crisis that we can summarise are:

1. **Insurance crisis model** - specific **fundamentals** are at fault. The model explains how wanting to accumulate a self-insuring reserve and insure domestic liability are a set of conflicting policies that always lead to crisis.

2. **Financial liberalisation** and **global interest rates fall** further increases the inflows of capitals. It was also responsible for completing the model’s crisis prerequisites.

3. **Declining reserve to bank liability** ratio as the main **indicator** preceding a crisis. The cause being the arrangement causing this.

February 1998

Dani Rodrik - 52nd with 85.8 points

Two paper were chosen from Dani Rodrik. This is the more general one, written at the time of the East Asian crisis but it only focuses on the topic of “capital controls” so the causes of the Asian financial crisis are only implied. A secondary paper discusses Korea in a more specific manner was chosen for the second (4.2) section.

Dani Rodrik looks at the international financial infrastructure and system to find the causes for the financial crisis. His focus falls on ‘international capital flows’ and the inherent boom/bust cycles of the financial system causing these troubles.

Rodrik takes a rather neutral stance trying to find the balance or the answer to the instability of the financial system. He explains that capital controls are crude, outdated tools but removing them may not necessarily improve stability. He suggests that having capital controls for at least short-term inflows could be beneficial. (Rodrik, 1998, pp.55-65)

Rodrik also believes that fundamentals during the East Asian crisis were not impactful enough to account for the sharp reversals of capital.

As a conclusion the main causes of the crisis that we can summarise are:

1. **Inherently volatile financial system** with boom and bust cycles, about which we know too little - e.g. asymmetric information, loan composition problems (currency and maturity mismatch, herd behaviour and positive expectations fuelling bubbles).
2. Liberalisation did not help the case, lack of controls on short-term capital inflows may have had contributing factors
3. Unclear if capital controls in general would have been more or less beneficial during the crisis


September 1998

Will J. Martin - 1140th with 1328.26 points
Warwick J. McKibbin - 1664th with 1854.45 points

As a conclusion the main causes of the crisis that we can summarise are:

1. **Inherently volatile financial system** with boom and bust cycles, about which we know too little - e.g. asymmetric information, loan composition problems (currency and maturity mismatch, herd behaviour and positive expectations fuelling bubbles).
2. Liberalisation did not help the case, lack of controls on short-term capital inflows may have had contributing factors
3. Unclear if capital controls in general would have been more or less beneficial during the crisis
Here the authors only focus on the three most affected states - Thailand, South Korea and Indonesia. They primarily look at the capital flows and believe that a number of shocks are responsible for the initial outbreak of the crisis which in turn prompted certain behaviour from the private sector and governments which resulted in “second-round impacts” (McKibbin and Martin, 1998, pp.1-2)

The first part presents their views on the shocks, which may have been the cause of the crisis while the second part conducts forward looking modelling. Only the conclusions from the first part will be taken into considerations.

The exogenous shocks which that considered are: “terms of trade shocks, appreciation of the US dollar under a currency peg; and a downward revision in the anticipated profitability of investments”. (McKibbin and Martin, 1998, pp.2) The authors state that a key question is finding whether the crisis was based on the fundamental changes or shocks or stimulated through financial panic and contagion. The authors explain that the fundamental changes are easier to observe so they measure those. However, from this claim it is implied that they would side with contagion causes if the the first claims ended up proving to be weak, as the results have shown in their study.

For terms of trade they find only South Korea with substantial declines, which the author attributed to improvements in semiconductors (as the declines practically disappear if accounted for them) and Indonesia only experienced a small slump in 1994. Majority of the declined occurred post and during crisis. (McKibbin and Martin, 1998, pp.3) Depreciation of the Japanese currency is also downplayed by the authors as although they understand that important trade similarities exists (especially with Korea) this would have an effect on the terms of trade. The authors find only a small and short period of appreciations in 1995 for their currency. Similarly in Indonesia the authors found only small appreciations of US dollar in addition to the offset created by Indonesian rupiah. In Korea the appreciation was also offset by the continued depreciation of the Korean won. As a single shock the authors downplay the validity of these small changes but agree that when compounded with other shocks they could be important. (McKibbin and Martin, 1998, pp.54-6)

Martin and McKibbin find evidence of declining quality of investment in all countries except Indonesia (Indonesia earnings and stock prices have remained strong until the onset of the crisis).

As a conclusion the main causes of the crisis that we can summarise are:

*Note: Authors were uncertain and didn’t find definite evidence for specific causes but concluded with “refinements” for these specific factors.*

1. **In Thailand and Korea a potential strong cause was the declining in stock and investments.** But in Indonesia the stocks remained robust until the crisis.
2. **Terms of trade only deteriorated substantially in Korea,** which is attributed to improvements in technology (semiconductors). In meantime the changes in Thailand and Indonesia weren’t as substantial. On the other hand, the authors claim that these could have been compounded with other shocks for more severe effect.
3. **Although changes in the pegged exchange rate were minimal** according to the authors, compounded with other shocks the system of the pegged exchange rate would strengthen a crisis as it lacked flexibility.
4. If the fundamentals did not warrant enough “troubling” signals these would imply the source of vulnerability was elsewhere, most probably contagion and financial panic. From these findings Thailand and especially South Korea seemed to have the most fundamental problems.

5. Changes in the risk premiums and various expectations about returns and the policies are believed to increase crisis strength.

4.1.13. “Asian Capitalism” and the Financial Crisis

August 1998

Ajit Singh - 1823rd with 1730.37 points (but only in non customised list meaning that he will be considered as top 10%)

Web of Science: Not available
Google Scholar: 183 Citations
CiteEe: 23 Citations
CiteSeerx: Unreliable results

Singh argues against the preliminary western assessments which mostly blamed the fundamentals and the traditional Asian models. Instead Singh makes his case that the causes are the polar opposite and the main responsibility falls on hasty liberalisation and false diagnosis by IFIs. The major argument is that the Asian model is unique and had been healthy, until it was merged together with incompatible western financial elements and consequently lead to the crisis.

Singh begins with an exposition reminding us how quickly and dramatically the East Asian nations have managed to develop including the reduction of poverty and increases in income per capita. Singh proceeds to describe the Asian model as a combination of protectionist and interventionist policies. Banks and businesses are very permanent, rigid structures who have close long-term connections while businesses and personal employment enjoyed high degrees of safety. Government intervened often by guiding the industries in the appropriate directions. Competition is managed by the countries to stay at the appropriate levels as they didn’t believe in the western ideal of “the more competition the better”. (Singh, 1998, pp.5-7) These elements are only found in the ‘ideal’ Asian model and differed by degrees of commitment throughout the region.

Singh acknowledges three major themes for causes of the crisis - the fundamentals reasons (which finds the roots of the problem in faulty investments), asset bubbles and over investment, the exogenous financial markets cause (which are most closely linked to self-fulfilling prophecy, multiple equilibrium and changing expectations) and finally liberalisation of global financial markets (places responsibility on deregulations such as capital accounts and questions if a crisis would occur had the liberalisation not occurred.) (Singh, 1998, pp.9-10)

In terms of fundamentals Singh mentions strong fundamentals in the past, and high saving rates with healthy fiscal positions. The author agrees that there were issues with short-term imbalances

3 Singh has also conducted further studies with similar conclusions after this study. 150 Citations for a newer paper assessing the liberalisation for emerging markets in general and another 66 Citations for a more recent analysis of the opposing views in. (Singh, 2003, pp191-216; see also Singh, 2006, pp.220-33)
and claims that the countries experienced liquidity problems (not insolvency) but were credible enough to pay them everything in the future.

Singh mentions capital supply shock as a major cause of the crisis but downplays the lack of transparency problem. He provides us with the 1990s Scandinavian crisis example which still occurred while had high standards of transparency. Furthermore he makes the point that a lot of information was still publicly available (while it may have lagged through the official channels). They fault may fall on international lenders for sending capital to very young and inexperienced banks against their own better judgement.

Another structural problem that Singh discusses is the presence of almost monopolistic corporations who enjoyed close ties with both banks and governments. However, he acknowledges the high debt structure but explains that it works in the Asian model as it is constantly monitored by the banks and the government. Consequently Singh claims that financial liberalisation was responsible for disrupting this balance as with less government interferences the checks and balances were easier to avoid in a weak financial system.

As a conclusion the main causes of the crisis that we can summarise are:

1. **Hasty Financial Liberalisation** is the main cause of the crisis. Lacking institutional development and channels and not enough supervision by the governments. Not enough governmental intervention.
2. **IMF misdiagnosis and used a cookie-cutter approach** which worsened the crisis and spread more panic by suggesting inappropriate and drastic changes.
3. **Minor causes - minor changes in fundamentals** may have sent wrong signals to investors and banks which resulted in overreacting.
4. **Contagion, panic and self-fulfilling prophecies** are responsible for the crisis as the fundamentals remained strong. It was a matter of illiquidity not solvency.

4.1.14. “Refocusing the IMF”

*March/April 1998*

**Martin S. Feldstein** - 23rd with 47.22 points

**Web of Science:** 128 Citations  
**Google Scholar:** 1036 Citations  
**CitEc:** 113 Citations  
**CiteSeerx:** 50 Citations

Feldstein’s analysis is primarily a critique of the IMF and the way they handled assistance to the East Asian financial crisis. We can infer several opinions about other causes of the crisis from this paper, however the crux arguments are the faults and blunders that the international organisation has been responsible for.

Feldstein’s major issue is with the IMF insistence on 1. radical economic restructuring of the economies at in crisis and 2. counter-productive policies for the countries. The author believes that the IMF should remain in its original and intended guidance role and treat countries as clients.
instead of wards. Feldstein explains that the IMF tried to employ a blend of previously successful strategies that may actually not work here the same way and may make a contradictory policy combination (solving illiquidity issues in Latin America by providing policy advice and ‘bridge’ loans; and advising on economic restructuring for the end of the Soviet Union). (Felstein, 1998, pp. 29-33)

Feldstein explains that Thailand, Indonesia, Malaysia and the Philippines experienced crisis because of increasing and persistent currency account deficits in addition to trying to uphold a fixed exchange rate. External currency shocks such as Japanese yen decline put pressure on the Thai baht which made it hard for the government to hold the peg. Currency crisis ensued and spread as a contagion to other neighbouring states. According to Feldstein the way to fix this would have been to cut down imports and raise exports which could be achieved by higher taxes, less government spending and tighter credit. Furthermore, funding to aid with meeting obligations and strengthening the reserves would have helped.

Korea is seen as a separate case in Feldstein eyes. He describes the improvements in semiconductors as a cause for deficit spike between 1994 and 1997 and several bankruptcies of the smaller chaebols. The reals reason for crisis in South Korea he attributes to too much short-term debt obligations that were exceeding foreign exchange assets and “since Korea’s total foreign debt was only 25% of GDP (one of the lowest among all of the developing nations) this was clearly a case of illiquidity rather than insolvency”. (Felstein, 1998, p.7)

Feldstein explains that instead of offering bridge-loans similar to the ones that Latin America received, the IMF wanted to introduce many structural changes and became responsible for allocation of IMF funds instead of trusting the local banks and financial systems. Feldstein argues that many policy recommendations were the same that the West was trying to get Korea to implement prior to the crisis and accuses the IMF of using the times of crisis as leverage to force agenda. He explains that even if some of these structural changes may have benefit in the long-term they are politically sensitive and irrelevant to solving the current crisis issues. Furthermore, in Feldstein’s view the short-term contractionary policies such as higher taxes, less government spending and credit constraint policies were also not fit for Korea unlike they were for the other East Asian states as Korea did not have alarming deficits. (Felstein, 1998, pp.29-33)

As a conclusion the main causes of the crisis that we can summarise are:

1. **Thailand, Indonesia, Malaysia and the Philippines** experienced shocks to their unsustainable fixed currency exchange rate. This resulted in those countries letting their currencies float.
2. **Contagion and financial panic** spread the crisis throughout the region.
3. Korea experienced minor shocks - semiconductor improvements and small chaebol bankruptcies. But was also the victim of a illiquidity crisis caused by contagion and required bridge loans
4. **IMF policies and approaches were harmful and controversial.** Radical structural changes that the IMF wanted were irrelevant to the crisis and were very political. In meantime the contractionary short-term policies did not fit the same way in every country, especially Korea.
5. IMF being in charge and not funding the local financial institutions with financial aid in order to solve the problems.
6. Tying together: IMF taking the leading role and demanding radical changes would send negative signals to investors

4.1.15. Stanley Fischer

Stanley Fischer held the position of the First Deputy Managing Director of the IMF from 1994 to 2001 and thus can represent the IMF assessment and position in regards to the Asian Financial Crisis. Two major papers were chosen.

“The IMF and the Asian Crisis”

March 1998

Web of Science: Not available
Google Scholar: 107 Citations
CitEc: 23 Citations
CiteSeerx: Not available

“The Asian Crisis: a View from the IMF”

June 1998

Web of Science: Not available
Google Scholar: 256 Citations
CitEc: 32 Citations
CiteSeerx: 12 Citations

This was written from the perspective of the IMF and shortly after the major crisis events, meaning that the paper also discusses approaches that the IMF took and plans to take in the near future. The two articles mirror each other in terms of the causes, while the second takes a more rigid stance defending and justifying the funds actions, especially against Martin Feldstein’s criticisms.

Fischer’s main message regarding the cause is that it is homegrown as explained it though three blunders: 1. failure to slowdown overheating economy (seen through deficits and asset bubbles); 2. pegged exchange rates regimes; and 3. lax prudential rules and supervisory institutions. Finally uncertainty and reluctance towards action and policies increased the crisis. (Fischer, 1998)

Fischer explains that a combination of changes in world economy (growth slowdown in Japan and Europe) and the encouraging local environment contributed to these destabilising inflows. During the crisis contagion played and important role in spreading the crisis to other states possibly because of expectations regarding trade links and re-assessment of loans by investors. This all resulted in the loss of confidence in investors. (Fischer, 1998) Fischer identifies three more elements which contributed to the confidence loss: 1. weak financial structure; 2. excessive unhedged borrowing; and 3. lack of transparency.

Fischer acknowledges the differences in deficit levels, examining how Thailand was worse off during the crisis while Indonesian and Korean deficits have been improving. The timing and
acceptance of the IMF programs also played a role too (e.g. Thailand only accepted right before running out of reserves). (Fischer, 1998)

On the note of moral hazard, Fischer discredits such claims by explaining that many investors and financial institutions involved are losing a lot of money in this crisis and not everybody is being bailed out. He justifies the actions of the fund because he explains that the structural problems are in fact relevant in the crisis and must be restructured in order to fix the problems. Fischer believes defends the IMF being responsible for the allocation of funding and policy recommendations by explaining that this is the best method effectively achieve the vision/goals of the fund’s programs. (Fischer, 1998)

As a conclusion the main causes of the crisis that we can summarise are:

1. Weak financial systems, structural problems and policy blunders are responsible for the crisis.
   1. Especially the failure to slowdown an overheating economy, pegged exchange regimes kept too long and relaxed and lack of supervisory roles.
2. State of the world economy - slowdown in relative growth in other developed nations encouraged capital inflows.
4. Reluctance, indecisiveness and timing with policies and accepting the IMF programs (especially for Thailand).

4.1.16. Robert Wade and Frank Veneroso

“The Asian Crisis: The High Debt Model Versus the Wall Street- Treasury-IMF Complex”

1998

Robert Wade - RePEc ranking unavailable
Frank Veneroso - RePEc ranking unavailable

Web of Science: 183 Citations
Google Scholar: 867 Citations
CitEc: 55 Citations
CiteSeerx: 49

The authors distinguish East Asian crisis form others (especially the earlier Latin American) by explaining that majority of the debt was private and not governmental as in other cases. Furthermore, unique features that the authors emphasise are positive are the growth rates and generally healthy fundamentals including low inflation, budget surplus or small deficit and growing reserves preceding the crisis. In other words it was not anticipated. (Wade and Veneroso, 1998, p.4)

The authors agree with the critics of the IMF programs. They argue that the runs and reversals have occurred due to contagion and loss of confidence meaning the confidence should be restored through lender of last resort funding and rescheduling debts. This in turn occurred due to the liberalisation waves which made it likelier for contagion to occur.
Wade and Veneroso explain that the East Asian model of business and corporate environment is very different to the western system, meaning that financial liberalisation has also caused some structural problems as the two weren't compatible. The traditional system remained balanced and stable within a closed economy, but after being opened to a volatile global economy the balance was distorted.

Wade and Veneroso explain that corporations in East Asia are highly leveraged relative to the western nations. The authors justify this on two accounts 1. high saving rates in East Asia; and 2. the requirements of tremendous amounts of resources and investments to compete globally (which makes it impossible to compete by other, less leveraged means). This means that the nations require close links with banks and governments so that those institutions could monitor the corporates sector and smooth out any systemic shocks but not protect against moral hazard. (Wade and Veneroso, 1998, pp.5-7)

Even though the highly leveraged systems may have better opportunities in growth, they are susceptible to relative smaller shocks in comparison to the western system, increase in the interest rates has a bad effect on the companies and the shock multiplies over the entire state and has drastic overall effects.

The authors also discuss the environment and the fast growth of the Asian countries as a cause for more inflows. The positive track record of the nations resulted in better expectations and banks and investors became less prudent. On the other side the liberalisation relaxed the regulations in Asia making capital flows easier while also removing the supervisory and guiding roles of the government. Chinese terms of trade and competitiveness improvement and appreciation of the US dollar exposed some weaknesses and the high leverage became problematic. The authors explain that through Nash equilibrium the investors reverse their capital flows and limit any further investments. (Wade and Veneroso, 1998, pp.7-11)


1998

Robert Wade - RePEc ranking unavailable

Web of Science: 90 Citations
Google Scholar: 390 Citations
CitEc: 23 Citations
CiteSeerx: 18

In this article Wade identifies two existing and opposite interpretations of the crisis into the “death throes of asian state capitalism” and “investors pull out/debt deflation in sound but under regulated system”. Wade disagrees with the first explanation, which blames too much government intervention by explaining that the debt was mostly private. Furthermore Wade praises the fundamentals for being positive unlike they should have been to support the death throes of asian state explanation. (Wade, 1998)
Wade also acknowledges certain fundamental weaknesses and growing structural flaws such as lack of technology spillover and lacking of experts and low education, including low enrolment ratio into schools.

He then presents the second view, of which he is a supporter, that the crisis was the result of investor pull out due to an under regulated system. The investors experienced a self-fulfilling crisis as each preemptively withdraws their funds expecting to do so before the others. The trouble was not too much regulation but the lack of correct regulation for a system involving too much mobile capital. (Wade, 1998)

First, the international financial environment developed in such a way (Japanese yen strengthening and Japan pursuing an expansionary policy) that made a carry trade possible and lucrative in the other East Asian countries and “Japanese-led investment and export boom”.

Secondly, the liberalisation connected bankers who were internationally inexperienced to easy to acquire, large international funds. These were borrowed in foreign denominated currency and then loaned out domestically. The pegged exchange rates was a standard that insured some (possibly false) stability and security. Furthermore, Wade explains that savings were very high in East Asian as households chose to deposit instead of buying equity. This meant that firms were highly leveraged domestically, with assistance of the government to provide “buffers” to firms due to reliance on borrowing instead of relying on the stock market and foreign direct investment. (Wade, 1998)

As a conclusion the main causes of the crisis that we can summarise from the two articles are:

1. This was self fulfilling crisis due to loss of confidence that spread through contagion
2. International factors (changes in Japanese and US currency) lead to an investment and export boom in East Asian countries. International investors became less prudent due to positive expectations of growth
3. Locally the countries had high household savings deposited in banks which was loaned out by banks to corporations (equity purchases were less common). The countries had unique high leveraged corporate sector supported by the government in times of need.
4. Financial liberalisation has made the economy more prone to systemic risk. It made the government’s supporting role weaker. It gave easier access for local inexperienced banks to large international capital. Liberalisation also disrupted the high leveraged system by exposing it to more risks.
5. Inflows put pressure on the exchange rate. This resulted in currency changed and exposed other weaknesses. As countries let their currency float it sent further signals, alarming the investors. Political rumours and and actual instability also contributed to shocks.
6. The IMF programs were contradictory and fuelled the crisis by wanting to restructure which further deteriorated the confidence. For example, IMF demands included even more liberalisation for Korea which was incompatible with their regime and system.
7. Contagion - currency changes negatively affected the states with foreign denominated and short term debt structure. Investors identified other neighbouring states with similar debt composition and panicked.

Wade and Veneroso’s main blame falls on the financial liberalisation and generally the actions of the West. In their view the Asian model may have been risky but was very unique and was balanced
out by the government in a closed controlled environment. It allowed the country to grow quickly. Through the IFIs the West kept insisting that the markets open up which disrupted this unique equilibrium.

4.1.17.“Real Estate and the Asian Crisis”

June 2001

John M Quigley - 419th with 533.67 points.

Web of Science: 24 Citations
Google Scholar: 143 Citations
CitEc: 22 Citations
CiteSeerx: 12

Quigley focuses on the presence of bubbles in the property market as a cause of the major disruptions. He acknowledges that it isn’t the sole shock or contributing factor but believes it to be a major one. Furthermore, he also notes that his research was conducted rather recently relative to the crisis and that the data is based on “private sources or financial observers” since official data wasn’t available for him at the time. (Quigley, 2001, p.130)

He explains that a real estate bubble is a possible factor due to criteria that were present during the Asian financial crisis. 1. The stable periods of growth have raised positive expectations and also encouraged businesses to want to expand, which relates office and work spaces rents and prices; 2. Real estate in East Asia was a very young and hard to value market - previously it was extremely hard to invest (we can imagine a “rush” to acquire opportunities which didn’t exist prior); 3. Some of the value spikes the author attributes to crony capitalism claiming it was easier to conceal. Quigley also mentions moral hazard as an explanation, linked to guarantees of financial institutions.

Quigley proposes that the shocks would originate from the real estate bubble and would spill over through contagion into a more general financial and currency crisis. This is because firms and corporations are both linked to assets and leveraged on them.

Quigley explains that at the time of writing there were no systemic empirical analysis, but he did the best he could. He looked at office space supplies to find the expected increases have been growing including doubling of expectations, this evidence included Malaysian, Thai, Indonesian and the Philippines markets. Quigley finds similar exponential expectations for residential buildings too. Quigley also finds evidence of diverging asset prices against rents which would also imply diverging from fundamentals (bubble criteria). The author explains how credit growth exceeded GNP and nonperforming loans to total loans ratios were increasing. Quigley also notes how real estate made large portion of their economies, “the average exposure of national economies to the real estate sector is large. Real estate debt, as a percent of GNP, was over 30% in Singapore and 44% in Thailand. It is estimated to be 58% in Malaysia and Thailand”. Finally Quigley notes that Thailand, Korea and Malaysia had evidence of guarantees and that the asset bubbles burst before the major development of the crisis. (Quigley, 2001, pp.135-40)

As a conclusion the main causes of the crisis that we can summarise from the two articles are:
1. Crisis originated from the real estate bubble burst
2. New market just opening up to the backdrop of amazing growth experiences fuelled expectations.
3. Guarantees for investors Possibly crony capitalism and moral hazard
4. Real estate investment made very large portions of the emerging markets and later large potions of the non performing loans
5. Contagion spread the shocks and crisis through the economy. Assets being used as leverage for loans and corporations would disrupt companies during asset price shocks.

4.1.18. “Moral hazard, asset price bubbles, capital flows, and the East Asian crisis: the first tests”

August 1999

Lucio Sarno - 427th with 542.55 points
Mark P. Taylor - 186th with 247.31 points

Web of Science: 47 Citations
Google Scholar: 186 Citations
CitEc: 56 Citations
CiteSeerx: 36

The authors of this article support moral hazard explanations of the East Asian financial crisis and attempt to prove this through their empirical research. Their interpretation of moral hazard is based on the problematic interplay of two elements of the East Asian economies - the guarantees provided by the government and low regulations for making prudential loans. This in turn fuelled risky business projects and opportunities, most importantly leading to an asset price bubble. The bubble in turn fuelled the economy, raised the prices and temporarily made an illusion of sound economic fundamentals. Once the asset bubble burst the insolvency of companies was uncovered. This approach argues contrary to other experts, insisting that majority of companies were actually insolvent and not illiquid. (Sarno and Taylor, 1999)

In order to test their hypothesis of moral hazard presence the authors test for three criteria or elements which are: 1. the presence of a asset price bubble; 2. size of permanent components in capital inflows.

To confirm the presence of an asset price bubble the authors test for discrepancies between the dividends and the price of the stocks on the market. Their evidence supports the presence of asset price bubble in all East Asia states but not in Australia.

Sarno and Taylor also examine capital inflows. They find that “there is a statistically significant permanent component in equity and bond flows to East Asian economies” however that sector is much smaller. The majority of capital are inflows with highly reversible temporary components. (Sarno and Taylor, 1999, p.655)

In order to control for their results the authors also look at Australia as it wasn’t a victim to the East Asian crisis. They find that Austria had neither an asset price bubble nor capital reversals which
remained permanent. The authors agree that these are only the first tests but according to this study they were passed making moral hazard interpretation valid.

As a conclusion the main causes of the crisis that we can summarise are:

1. The crisis was caused by the presence of **moral hazard**
2. This was caused by **government guarantees** together with **lacking prudential regulations**
3. There is evidence of a **asset price bubble**
4. Permanent capital inflows were very small. **Majority of inflows were very reversible**
5. Companies became **insolvent and not illiquid** during the crisis.


*December 1999*

**Philip Arestis** - 1561st with 1759.63 points  
**Murray Glickman** - RePEc ranking unavailable

**Web of Science:** 46 Citations  
**Google Scholar:** 234 Citations  
**CitEc:** 33 Citations  
**CiteSeerx:** 38

As the title suggests the authors of this research believe that the Asian financial crisis can be explained through the Hyman Minsky’s ‘Financial Instability Hypothesis’. The core of the hypothesis argues that economies falling victim to such crisis are at fault for **lacking regulation**. Just as other experts applying the Minsky hypothesis, the model had to be changed in order to be applicable to the international aspects of the East Asian crisis since the original research aimed at a closed economy framework. (Arestis and Glickman, 2002, pp.2-3)

This argumentation is based on the fact that the **financial framework is inherently flawed** and that under normal circumstances due to the cyclical nature of economics it would eventually lead to a crisis if left alone. Part of what makes it flawed is the constant **financial innovation and rent-seeking** opportunities by investors and intermediaries. Speculative positions are always more profitable, according to Minsky, this makes it lucrative for more people to practice **speculative financing**.

Normally, orthodoxy and conservatism prevents speculative financing, but these can be eroded through 1. innovation and change of legislation and government and 2. successful periods fuelling optimism and increasing the asset price thus giving the illusion of success. This further erodes borrowing barriers and makes the system fragile. Finally a shock disrupts this system which either originates naturally (by pulling one of the supply prices up such as interest rates) or even externally. (Arestis and Glickman, 2002, pp.6-7)

Being in the international environment complicates the situation as foreign currency is involved. This makes countries vulnerable to exchange rate shocks. At the same time short-term credit is what attracts investors which opens up vulnerabilities in interest rate. The economy can keep either a pegged system or not but either one will signal “healthy fundamentals”. (Arestis and Glickman,
Financial liberalisation intensifies most of the elements of the Minsky model. First, it encourages further financial rent seeking innovation as it eroded older rules. Secondly, liberalisation and its proponents sell it as a series of prudential and safety-encouraging regime changes which could provide an illusion of safety. It gives countries false credibility. (Arestis and Glickman, 2002, pp. 12-4)

The first evidence of a Minsky crisis in Asia is the timing of liberalisation. The authors show all Asian-5 countries have undergone extensive financial liberalisation, except South Korea (also removes capital controls shortly after). The number of state owned assets also decreased in most of these countries. (Arestis and Glickman, 2002, pp.15-6)

The second and third evidence is the growing debt and debt composition and massive private capital inflow. Liberalisation encouraged firms to borrow abroad (currency mismatch) and mostly in short-term liabilities. The funds mostly, according the authors, went into real estate up to “25-40 per cent of bank lending in Thailand, Malaysia and Philippines in 1998” meaning to support the loans the economies had to rely on asset price increases. As “speculative financing activity by firms, households and banks drives up the ratio of private sector debt to national foreign currency reserve” the state too transforms into a “Ponzi-financing unit” as a whole. (Arestis and Glickman, 2002, p.17-9)

Arestis and Glickmann reject the view that a major cause was a combination of the exchange rate regime with bank guarantees but rather group it together under the umbrella of liberalisation as a policy shift. They also argue against the panic view on the grounds that the panic was unanticipated, and up to the very brink of the crisis the economy was still growing steady even without bank guarantees in some case in other words there was a lack of signals to shock investors.

As a conclusion the main causes of the crisis that we can summarise are:

1. **Financial systems are inherently volatile and fragile.** This is explained by constant financial rent-seeking by individuals akin to moral hazard.
2. **Orthodoxy, strong government and regulations** are responsible for limiting the dangers of financial systems as much as possible. These were dramatically eroded in East Asia through the financial liberalisation.
3. Financial liberalisation ended up encouraging investments in many different ways. It was cheaper and easier to borrow abroad. The government’s role was weakened. The supervisory roles were limited and capital controls were lifted. It provided false credibility.
4. Furthermore, to be able to borrow, debt was undertaken in short-term liabilities. And in foreign currency. This made a lot of private debt not only speculative, as in the traditional Minsky sense, but super speculative. Furthermore capital inflows funded asset price bubbles.
5. East Asian countries became extremely highly leveraged while this leverage was very vulnerable. Small shocks could compound themselves due to several layers of vulnerabilities. Speculative positions shifted to ponzi scheme levels and as a whole undermined the government’s reserves.
4.1.20. Graciela Laura Kaminsky and Carmen M. Reinhart

Carmen M. Reinhart - 25th with 49 points
Graciela Laura Kaminsky - 458th with 584.12 points

Kaminsky and Reinhart have conducted extensive research on causes and predicting financial crises, especially relating this research to emerging markets. A lot of their work also builds upon their earlier research which looks at an extensive collection of indicators found in earlier crises in order to find universal predictors such as “The Twin Crises: The Causes of Banking and Balance-Of-Payments Problems” and “Leading Indicators of Currency Crises”. Such research was represented with very successful citation numbers but relied on cumulative, historic explanations instead of focusing on the East Asian financial crisis of 1997 alone. For this reason two specific studies that look at contagion are chosen (with comparatively weaker citation numbers), which will be supplemented with citation data from the closest general study on contagion (which also covered the East Asian crisis). (Kaminsky and Reinhart, 1999; see also Kaminsky, Lizondo and Reinhart, 1998)

“Financial crises in Asia and Latin America: Then and now”

1998

Web of Science: 66 Citations
Google Scholar: 423 Citations
CitEc: 128 Citations
CiteSeerx: 25 Citations

“Bank Lending and Contagion: Evidence from the Asian Crisis”

2001

Web of Science: 11 Citations
Google Scholar: 165 Citations
CitEc: 73 Citations
CiteSeerx: 25 Citations

“On crises, contagion, and confusion”

2000

Web of Science: 230 Citations
Google Scholar: 1300 Citations
CitEc: 400 Citations
CiteSeerx: 143
The first article merges the ‘typical’ crisis explanations that authors have worked on before with newer observations in East Asia. Typically, a crisis occurred in cycles and as a result of too much credit and capital inflows. These were strengthened through moral hazard which was supported by government guarantees. An overheated economy which created bursting bubbles, overvalued currency and weaker exports. (Kaminsky and Reinhart, 1998, p.444)

Prior to the East Asian crisis the authors describe a healthy structure where some states enjoyed FDI inflows with appropriately low short-term inflows. Kaminsky and Reinhart explain that by 1996 in many East Asian states “sterilized intervention kept short-term interest rates high relative to international levels and acted as a magnet.” (Kaminsky and Reinhart, 1998, p.477) This means that the governments were responsible for creating such environments that invited credit inflows. At the same time, on a more local levels the banks and financial institutions were “under-regulated and ill-supervised” during their intermediation of these funds. The authors also blame the volatile nature of the capital flows themselves as a cause, but only a combination of the two would explain the crisis. Although the causes described are required in order to undermine the system by making fragile and vulnerable to shocks, a financial crisis such regional magnitude still requires contagion explanations. In their other studies, Kaminsky and Reinhart have been downplaying the trade links explanations finding too few impactful trade links between states. Instead they support the idea that a common lender is responsible for the spread of the crisis and contagion.

More specifically common bank exposure is blamed for crisis transmission. As a bank experiences a shocks originating from one of the states, they try to hedge more and limit risks. This may take the form of less lending, switching to government bonds and denying roll-overs. Consequently, this puts immense pressure on any other country that was also borrowing from the same banks. This also means that credit and short-term loans instead of equity and bonds made this arrangement possible. (Kaminsky and Reinhart, 2001, pp.5-7)

Credit inflows were encouraged as a result of European interest in expanding investments in emerging markets and Japanese banks credit expansion due to Japan’s unfavourable domestic environment.

• US exposure to Asian investment only accounted for 20 percent of lending to investments markets.
• Japanese exposure was four times larger than the US and represented two thirds of their investments to emerging markets. Most of the exposure was in Thailand, which was the first country to experience shocks and Japanese banks were the first to withdraw their investments.
• European exposure to Asian markets represented half of their emerging markets investments (with 40 percent in South Korea). (Kaminsky and Reinhart, 2001, p.9)

As a result the authors finds that having a common lender links the countries to other countries experiencing a “fundamental-based” crisis making this a two part phenomenon. Similarly the third, more general research also finds evidence to suggest that the general lender - especially the Japanese banks, was a constant in all of the heavily affected states. (Kaminsky and Reinhart, 2000)

Primary causes of the crisis “fundamentals”:

1. East Asian governments created sterilised environments which made artificially higher interest rates relative to other states (especially Japan). This attracted capital inflows.
2. Europe was interested in expanding in East Asian emerging markets. Japan was also interested in investing in East Asia as Japanese economy slowed down.

3. Financial liberalisation. **Ill-regulated and under supervised bank intermediaries** in combination with **government guarantees** (moral hazard).


5. **Concluding:** High quantity of highly volatile short-term inflows were attracted en masse into a weak financial structure.

Contagion and spread of the crisis through the region:

1. **Authors downplay trade links**
2. **Common bank lenders - especially Japanese banks** are a major connecting factor. Countries most affected were part of overlapping bank clusters.
3. Experiencing troubles from Thailand (where Japanese banks were predominantly invested) the banks would **minimise risks** and switch to activities which consequently put pressure on other borrowers such as **limiting credit, denying roll-overs, and reversing capital**.

**4.1.21. Jenny Corbett and David Vines**

**David Vines** - 2378th position with 2294.46 points (but only in non customised list meaning that he will be considered as top 10%)

**Jenny Corbett** - RePEc ranking unavailable

“**Asian currency and financial crises: Lessons from vulnerability, crisis and collapse**”

**1999**

**Web of Science:** 17 Citations

**Google Scholar:** 84 Citations

**CitEc:** 13 Citations

**CiteSeerx:** 16 Citations

Corbett and Vines focus on **vulnerabilities** which consequently undermined the financial structure and lead the crisis. They also stress the importance of the **relationship between currency crisis and financial crisis**, explaining that due to the unique interconnectedness (e.g. unhedged investments in foreign currencies) vulnerabilities lead to two different crises - currency and financial.

The source of the vulnerabilities the authors attribute to the **Asian ‘miracle’ boom** in combination with **liberalisation** and **lack of proper institutional developments**.

Corbett and Vines explain how the East Asian states, such as Thailand, used a monetary policy regime in combination with fixed (or pegged) exchange rates. The pegging offered stability and government backing while the monetary regime allowed for prudential export expansion. These were the exact arrangements that were praised as the East Asian miracle. The problem, according to the authors, came with hasty liberalisation which distorted this equilibrium and introduced shocks. (Corbett and Vines, 1999, p.158)
The authors describe two major sets of vulnerabilities - macroeconomic policies and financial structure vulnerabilities.

1. **Mundell-Fleming model** describes how “trilogy of fixed exchange rates, autonomous national monetary policy, and open international capital markets is inconsistent”. With the liberalisation the economies were opened to world capital markets completing the trilogy.(Corbett and Vines, 1999, p.158) At the beginning the low interest rates and opening of the market to foreign capital overheated the economy. To combat this, governments of Thailand, Indonesia and South Korea increased the domestic interest an attempt to curtail the boom. The results, however, only further encouraged foreign borrowing as it was more lucrative for local businesses. Secondly, the authors note how the states were not able to acquire an adequate amount of reserves in order to protect against shocks, while the capital inflows only perpetuated expectations of a consumption boom. This made the countries vulnerable to both boom and bust cycles and external shocks. (Corbett and Vines, 1999, p.159)

2. Liberalisation created a very fragile and weak financial structures due to guarantees by the governments. This meant that moral hazard went into play as financial intermediaries had an incentive to invest and downplay risks. The guarantee policies lagged from the traditional economy meaning that they covered less capital initially but now ended up covering foreign capital. The other vulnerability came in the form of companies in East Asia being highly leveraged.

The authors explain the interconnectivity of the two vulnerabilities. Countries inadvertently broadcasted multiple, stacking incentives for more short-term capital inflows and more investment. At the same time the risks only compounded as the government gave the impression of providing guarantees. For instance, fixed-exchange rate offered implicit guarantees for foreign denominated loans.

The vulnerable system experienced two major shocks. 1. **Deminishing returns on investments**, possibly because of overheating and investment boom; and 2. **Worsening external position**. In regards to the external position the authors acknowledge a number of possible reason without a conclusion including appreciation of dollar/yen (due to pegging), strengthening of Chinese exports, worsening domestic competitiveness (as costs rise) or bad performance of the technology market (due to emergence of new players and overcrowding.) (Corbett and Vines, 1999, p.163)

The authors use Thailand as the crux, starting point for their analysis. They explain how Thailand came under the shocks explained earlier which placed pressure on the Thai economy. Unlike other models which resort to explanations based on diminishing reserves and panic, Corbett and Vines explain that the costs of maintaining the peg (exports losing competitiveness and vulnerabilities) became too high to warrant further interest rate increases. The economy would also simply be unable to stand against further shocks and attacks. Thus, the authors resort to the second-generation linking it to the research of Obstfeld, by showing that it was a preemptive decision. For the other East Asian states, Corbett and Vines use the self-fulfilling crisis explanation. (Corbett and Vines, 1999)
This, however lead to a financial collapse as floating the currency set off the build up of vulnerabilities (such as the foreign denominations) and any future loans experienced increases in premiums thus also further putting pressure on the bail-out and halted the economy.

As a conclusion the main causes of the crisis that we can summarise are:

1. The primary cause was the sequential series of events that lead to **amassed short-term capital in foreign denominated currency being guaranteed by governments**.
2. The **miracle model** of East Asian countries was distorted with **hasty liberalisations**. The **traditional guarantees** in the form of **fixed-exchange rates and promised bail-outs** ended up encouraging an **investment boom** as domestic rates were very lucrative.
3. In meantime, liberalisation **opened the counties to foreign capital**. There was also **less regulation and supervision** for a rather young and vulnerable financial system, this also allowed for **moral hazard** to occur.
4. Companies were **highly leveraged** in foreigns **denominated currency**. Short-term debts were **amassed**.
5. **Thailand** experienced **shocks** on their **external position**. Increase in domestic prices, loss of competitiveness, appreciation of dollar and yen are possible explanations. This prompted the country to devalue their currency, which deteriorated their loan standing. Malaysia, Indonesia, South Korea and the Philippines were less obvious, **so self-fulfilling prophecy** and **contagion** are possible.
6. The authors also suggest that the crisis could have been avoided if **lender of last resort** was available to cover guarantees.

### 4.1.22. “Common Fundamentals in the Tequila and Asian Crises”

*May 1999*

**Aaron Tornell** - 920th with 1099.05 points

**Web of Science**: Not available  
**Google Scholar**: 214 Citations  
**CitEc**: 69 Citations  
**CiteSeerx**: 32 Citations

Tornell takes a comparative approach to 1997 “Asian crisis” by comparing it to preceding 1994, “Tequila crisis” which occurred in Latin America. The conclusions of the author mostly point towards a set of particular fundamentals which were present in both events. (Tornell, 1999, p.2)

Due to the costs and risks of taking short positions, the author uses herd behaviour **based on fundamentals** to explain the actions of investors.

The model assumes investors who are under the incentive to look for currency to attack but will only do so with others. Due to lack of communications, signals are used to “co-ordinate attacks”. In response a country either depletes reserves, increases interest rates or depreciates currency. (Tornell, 1999, p.5)
The reserves are limited by the quantity that the government owns and will eventually run out. The increase in interest rates would only be possible in an economy with strong banks as and economy with weak banks (with many non performing loans) would lead to a recession and possibly even a meltdown. Finally, the depreciation of the currency is only possible in countries without any high real appreciation. This means that low reserves, weak banks and high real appreciation are coordinating attack signals for investors.

Tornell uses a series of indices to measure the depletion of the reserves and currency depreciation against the US dollar. Not enough data was available to include the interest rates and the weaknesses of the banks were harder to measure. Instead he focuses on lending boom measurement to imply measurements of the banks. (Tornell, 1999, pp.12-4)

Interestingly, after accounting for real depreciation and lending boom the three popular explanations: government consumption, high capital inflows and ratio of current account deficit to GDP are all downplayed by the author.

As a conclusion the main causes of the crisis that we can summarise are:

1. The countries affected by the crisis sent signals of distress to the investors
2. These signals were based on several specific fundamentals
3. These are: weak bank sector (as defined through the quantity of non performing loans) and low reserves
4. In addition, experiencing both a lending boom and a real currency appreciation also signalling fragility and invited the investors to attack the currency
5. Tornell ends on the note that these vulnerabilities do not make the crisis inevitable but only possible if investors become pessimistic, this implies the requirement for a shock

4.1.23. “The Hazard of Moral Hazard: Untangling the Asian Crisis”

2000

Ha-Joon Chang - RePEc ranking unavailable

Web of Science: Not available
Google Scholar: 234 Citations
CitEc: 19 Citations
CiteSeerx: 22

Ha-Joon Chang takes the position that stands against the moral hazard explanations. Chang identifies several different sources of moral hazard which are supported by various experts. Amongst these explanations are: crony capitalism explanations (based on relationship banking, preferential connections in terms of credit access), industrial policy explanations (which describe the incentives and encouragements the government provides certain sectors, including guarantees) and finally bank deposits guarantees and corporate ‘too big to fail’ guarantees (letting banks takes extra risks and supporting chaebols). (Chang, 2000, pp.775-7)

Chang begins by arguing that moral hazard is an inherent element of the modern financial system, and while there are risks which end up being socialised and shifted onto the public, in
Chang’s opinion the benefits of those projects succeeding end up outweighing the costs. (Chang, 2000, p.777)

**Industrial policy** - Chang argues that industrial policy was mostly absent in majority of the East Asian region by the time the crisis took place. The only region well known for their industrial policy was South Korea which also dismantled most of it by 1993. Chang argues the Korean industrial policy was in fact strict and forced non efficient corporations out of business, regardless of their sector. He believes that companies were valued on their export performance. Chang concludes that ending the industrial policy right before the crisis also introduced new problems such as double investment and general lower regulation left more room for cronyism. (Chang, 2000, pp.775-80)

**Cronyism** - Cronyism supports the view that the government encouraged and protected sectors based on nepotism and political allies as opposed to ‘going against market logic’. Chang questions how cronyism could have lead to a crisis if it was always present to a degree during the growth periods. He refutes a possible explanation that uses the deregulation to explain a boom in cronyism by being unable to find any real evidence of cronyism increase (rather even a decrease was observed by some indicators). Finally, he explains that it inherently must be selective while the financial troubles were widespread and questions the lack of assessment prudence of international investors. (Chang, 2000, pp.779-80)

**Deposit Insurance** - Chang attacks the deposit insurance explanations based on the fact that bank managers are not always protected only the depositors. This means that during a crisis and after the assessment of the managers, they carry the risk of losing their jobs and reputations. (Chang, 2000, pp.781-2)

**“Too big to fail” argument** - Chang defends the Korean chaebols by explaining that in the near past most of the industrial and even western countries have saved their huge conglomerates. Furthermore, Chang explains that as long as the top management is punished and changed during troubling times then the moral hazard argument is eliminated. Chang doesn’t address the inherently non efficient structure of the chaebol as an institution though. (Chang, 2000, pp. 782-3)

**IMF bail-outs** - Chang evaluates the IMF bail-outs as a phenomenon that encourages moral hazard by implying future guarantees. Chang agrees that to an extent many international investors have gotten more confident from the past incidents such as the Latin American crisis, but at the same time Chang argues that many money managers ended up losing their jobs and during some crisis such as the 1982 Debt Crisis the investors had to carry the costs. Chang also argues that any presence of risks and costs outweigh the benefits. He questions if bail-outs were a part of the decision process since the countries in the region experienced improving ratings, growth and stability.

As a conclusion the main causes of the crisis that we can summarise are:

1. **Moral Hazard** explanations are criticised and downplayed. Their presence is acknowledged to a much lower extent. Moral Hazard is also inherently present throughout the modern financial system yet the risky, development gains end up outweighing the risks.
2. **Industrial policy** was decreasing and being dismantled throughout the region. In fact, possibly removing this policy and introducing lax regulations introduced new problems e.g. double investment, over-investment.

3. **Cronyism** was always a part of the East Asian financial system even during the stable and growth periods. For it to contributed to the crisis it would have to be widespread which is contradictory to the nature of the concept.

4. **Deposit insurance and ‘too big to fail’ arguments** falter as the managers usually end up being punished, thus in theory removing incentives for moral hazard behaviour.

5. Finally the **IMF bail-outs** may have contributed to international investor moral hazard; however the role of IMF bail-outs is questionable in the decision making of investors due to the stable and improving conditions of the region prior to the crisis.


*November 1998*

Pedro Alba - RePEc ranking unavailable  
Amar Bhattacharya - RePEc ranking unavailable  
Stijn Claessens - 228th with 300.19 points  
Swati Ghosh - RePEc ranking unavailable  
Leonardo Hernandez - RePEc ranking unavailable

Web of Science: 2 Citations  
Google Scholar: 124 Citations  
CitEc: 27 Citations  
CiteSeerx: 19 Citations

The authors provide a very extensive overview of the major contributing factors both external and internal, and conduct a case-by case analysis of each country, for this reason a their brief general analysis is presented here with an additional short analysis presented in the Korean section (4.2). The authors acknowledge the situation of massive capital inflows flowing into the East Asian region as having an important contributing factor, especially since it was biased towards short-term capital.

They divide the major debate of the causes of the East Asian crisis into two main groups - fundamental weaknesses that would inevitably lead to a crisis or the financial panic explanation. The paper takes an **more neutral position, but leaning towards the financial panic**. The major fundamental weaknesses were in the form of inadequate levels of supervision, prudence, financial discipline and unhealthy macroeconomic policies which had the effect of cumulating vulnerabilities. The crisis became worse and compounded as many vulnerabilities, such as highly leveraged companies, became drastically more problematic during crisis times. (Alba et. al. 2008, pp.10-5)

**Financial sector vulnerabilities** - The authors argue that the East Asian financial systems were originally weak with inadequate regulation and supervision including;
“Insufficient capital adequacy ratios, inadequate legal lending limits on single borrowers or group of related borrowers, inadequate asset classification systems and poor provisioning for possible losses, poor disclosure and transparency of bank operations, and lack of provisions for an exit policy of troubled financial institutions” (Alba et. al. 2008, p.12)

Financial sector liberalisation put two further pressures on the market; more competition for banks forcing them to make riskier investments. Secondly it introduced non-bank financial institutions which enjoyed less regulation and put more pressure on official banks. Previous crisis remedies in the form of bail-outs created implicit guarantees to encourage more riskier behaviour.

Vulnerability in Corporate Governance and lack of transparency - monopolistic, highly concentrated (often family based) ownership, weak market incentives (relationship banking, few but regulated main institutions and weak supervisory institutions - credit ratings). (Alba et. al. 2008, pp.13-5)

Policies promoting borrowing abroad - increase demand for credit and higher investment rates, more integrated and accessible foreign credit to satisfy demand. Being more attractive meant that inflows overheated the economy and presumably spilled over into the assets creating asset bubbles. (Alba et. al. 2008, p.20)

Pegged exchange rates - made the country more attractive to investors, also offered a sense of stability and downplayed risks thus discouraging hedging. This had the effect of increased interest rates which attracted short-term loans. (Alba et. al. 2008, p.22)

The authors identify several microeconomic elements that contributed to vulnerability - implicit guarantees (willingness of the government to provide financial assistance for liabilities), high cost of intermediation and creation of offshore banking (which started competing with mainland in terms of deregulation and financial advantages.

Furthermore, the authors blame currency mismatch (foreign denominated loans) and maturity mismatch (bias towards short-term liabilities).

Finally, the growing concerns of global investors, cyclical economy slowdowns put more pressure on the system eventually exposing the vulnerabilities and culminating in speculative attacks on Thailand and thus starting the crisis. The authors are less certain in regards to contagion versus fundamental-based crisis in other regions.

As a conclusion the main causes of the crisis that we can summarise are:

1. Originally weak financial system entered the integrated world. The countries lacked proper prudential, supervisory and regulations.
2. Deregulation and financial liberalisation further worsened the situation.
3. Macroeconomic policies included a pegged-exchange rate and high domestic interest rates thus overheating the economy and becoming a magnet for capital inflows.
4. Pegged exchange rate and implicit guarantees offered security and thus gathered even more inflows, investors could make riskier deals.
5. In reality this created too much currency and maturity mismatch compounding the risks.
6. **Concentrated, monopolistic banks** enjoyed a lot of **protection and lack of credit agencies** lowered market incentives. In meantime the **smaller banks had to compete more due to liberalisation** as banks tried to get riskier deals to stay profitable.

7. Growing concerns of investors and cyclical downturn of the economy exposed the weaknesses and vulnerabilities and set the crisis in Thailand. It spread possibly through panic-based mechanism to other states.


*October 2002*

**Juzhong Zhuang** - RePEc ranking unavailable  
**J. Malcolm Dowling** - RePEc ranking unavailable

**Web of Science:** Not available  
**Google Scholar:** 51 Citations  
**CitEc:** 7 Citations  
**CiteSeerx:** 2 Citations

Although the citation results and the RePEc ratings have been low for this research, it has been conducted by senior members of the Asian Development Bank (which was closely modelled after the World Bank and major influencing powers and donors being the US and Japan) so can be included as part of the international organisations view.

The authors divide the debate in two sides, based on the transmission interpretations. The first view holds that several East Asian were infected by the crisis based on fundamental weaknesses or distortions, while the rest of the fell victim only because it was followed by a shift in market expectations. The second view claims that the crisis was caused by fundamental weaknesses and distortions alone, after which the investors altered the economic conditions thus (in the style of a vicious cycle) further weakening the state of the economy. (Zhuang and Dowling, 2002, pp.1-2)

In order try and shed more light on this debate, the research uses an Early Warning System in order to test the conditions of the states before the crisis, possibly explaining that the crisis was fundamental based if real problems were found. The authors only focus on a ‘currency crisis’ as opposed to the financial one and use an extensive list of indicators, including amongst others: foreign reserves, debt composition, currency, interest rates, production, credit and deposit, and fiscal indicators. (Zhuang and Dowling, 2002)

The results of the research have shown that crisis probabilities remained low until 1996. From early to mid 1996 the crisis probability heightened dramatically and remained high until the crisis in Thailand, Korea, Malaysia, Indonesia and the Philippines. In contrast, Singapore experienced heightened probabilities but to a much lower extent. (Zhuang and Dowling, 2002, pp.8-9)
The indicators with the best predicting results were:

“real exchange rate against the US dollar from its trend (78 percent), the deviation of the real effective exchange rate from its trend (72 percent), the short-term debt/foreign reserves ratio (65 percent), the residents’ deposits in Bank for International Settlements (BIS) banks/foreign reserves ratio (57 percent), the M2/foreign reserves ratio (54 percent), the foreign liabilities/foreign assets ratio (52 percent), and the current account balance/GDI ratio (51 percent).” (Zhuang and Dowling, 2002, pp.14-5)

These consequently imply and indicate further causes of the crisis which are covered in the summary.

As a conclusion the main causes of the crisis that we can summarise are:

1. The crisis was a result of “weak fundamentals” and vulnerabilities being exposed rather than pure investor panic. In other words, this was a rational response of the market.
2. Real appreciations of local currency have badly affected the trade and current accounts
3. Capital account troubles - too much foreign liabilities versus foreign assets (currency mismatch)
4. Finally, too much credit growth and expansion including non efficient investment in real estate.

4.1.26.“Financial Market Contagion in the Asian Crisis”

November 1998

Ilan Goldfajn - Only in top 6%
Taimur Baig - RePEc ranking unavailable

Web of Science: 100 Citations
Google Scholar: 1013 Citations
CitEc: 258 Citations
CiteSeerx: Not available

The authors of this paper were only concerned with the contagion aspect of the crisis or rather mechanisms behind the transmission of the shocks between the countries in the region. This means that any initial causes and shocks are not discussed in this paper.

The question that the authors attempt to answer is whether it was a fundamental based contagion or panic-driven contagion. They conduct an experiment by checking for correlation over three and a half years between five chosen countries - Thailand, Malaysia, Indonesia, the Philippines and Korea, in terms of their “foreign exchange, equity, interest rate, and sovereign debt markets”. (Baig and Goldfajn, 1998, p.5) To control they also check during ‘tranquil’ periods.

Specifically the authors test for the herd mentality of investors reversing their funds and causing the contagion. The investor’s behaviour is explained due following other money managers lowers costs and risks. The authors also suggest a possibility of a “wake-up call” scenario where the investors
view the same fundamentals from a new perspective after crisis, but the authors explain they are not able to distinguish between the possible explanations.

In terms of fundamentals the exchange rate experienced some correlations, especially between Indonesia and Malaysia. Stock market and interests have experienced correlations between all countries relative to exchange rates. Using a Vector Auto-regression the authors find that shocks from Thailand had an immediate, four day lasting effect on currencies of Malaysia, Indonesia and the Philippines stock markets movements correlates for every country. (Baig and Goldfajn, 1998, pp.16-22)

The correlations were higher in crisis times than in tranquil times, for the currency exchange. Correlation for stock markets were generally always high during in every period and there was almost no correlation for interest rates during tranquil periods. (Baig and Goldfajn, 1998, p.24)

The authors also found a lot of correlations based on ‘good news’ and ‘bad news’ originating from local and neighbouring countries, and interestingly after accounting for fundamentals and news the correlations persisted and were high.

As a conclusion the main causes of the crisis that we can summarise are:

1. The research finds a lot of contagion correlation during periods of instability for the five countries - Thailand, Malaysia, Indonesia, the Philippines and Korea.
2. **Countries react and move closer together to crisis** thus spreading the instability through the region
3. When accounting for fundamentals and news the correlations, thus contagion still persisted. This implies **panic based/herd behaviour contagion**.

4.1.27. “East Asia: The Road to Recovery”

1998

**World Bank Research**

**Web of Science:** Not available  
**Google Scholar:** Unreliable Citations  
**CitEc:** 61 Citations  
**CiteSeerx:** 53 Citations

This was an extensive research conducted by the World Bank. The citation numbers were unfortunately unreliable for this paper however it was a team effort of many high ranking (by RePEc standards) experts. The causes of the East Asian crisis will be briefly presented here.

The approach used to explain the crisis is from the perspective of stacking vulnerabilities. The three main forces are described: **availability of large quantities of short-term private capital**, **macroeconomic policies which encouraged credit boom**, growth and expansion and hastily **liberalised economies lacking prudential regulation and supervisory bodies.** (World Bank, 1998, p.4)
The push of readily available capital and the incentives encouraged borrowing which also diminished the returns as the better investments were taken. Capital coming in the form of short-term liabilities dangerously leveraged companies as opposed to the more stable direct investment and increased current account deficits.

Locally, the corporate sector is accused of lending to risky investments with “inflated values, often with currency and maturity mismatches, which exposed entities to exchange rate risks”. At the same time the informal and nepotism-based accusations (implying crony capitalism) removed incentives for efficient investments. Certain sectors and firms enjoyed preferential treatment and implicit and explicit guarantees, thus eliminating ‘credit-worthiness’ which plays a supervisory role. Foreign bank entry was limited and their operation capacity was relatively small. The authors argue that the presence of a “too big to fail” understanding by governments and investors could have been an explanations for lack of prudence on investors part and their lacking desire to seek more information. Finally regulatory institutions were in their infancy or missing e.g. Thailand’s single credit rating agency was only recently established and was still struggling to gain reputation. (World Bank, 1998, pp.56-60)

Finally, contagion occurred as investors experienced a loss of confidence. Stocks and assets fell in neighbouring states, trade linkages also diminished regional exports.

The trigger occurred in Thailand as wages increased with appreciations, demand for products fell and asset prices stopped growing. (World Bank, 1998, p.9)

As a conclusion the main causes of the crisis that we can summarise are:
1. Countries were growing more vulnerabilities as time approached the date of the crisis. Macroeconomic policies encouraged credit inflows. Liberalisation and low regulation further contributed towards this. Most of the attracted capital was short-term liabilities
2. Large quantities of short-term private capital was available to be invested
3. Vulnerable corporate sector - moral hazard and crony capitalism. Underdeveloped financial system with weak regulation and supervision was not capable of handling so much capital inflow. Companies were increasingly, dangerously leveraged - currency and maturity mismatch.
4. All the growing vulnerabilities were set off by halting/deteriorating exports. This occurred due to:
   1. Fall in world trade growth
   2. Japanese Yen depreciation
   3. New competitors: China
   4. Specialised exports experiencing problems - technology, semiconductors
   5. Real exchange rate appreciation in some states.
5. Exports deteriorating set off the crisis in Thailand which was spread through contagion and loss of investor confidence throughout the region.
4.2. South Korea Crisis Interpretations

4.2.1. “Asian currency crisis and the International Monetary Fund, 10 years later: Overview”

June 2007

Takatoshi Ito - 290th with 381.92 points

Web of Science: 35 Citations
Google Scholar: 89 Citations
CiteSeerx: 6 Citations (unreliable data)

Ito looks over the crisis from a more aged perspective - around 10 years after and utilising newer documents that were made available. His goal was also to see which theories have managed to withstand the scrutiny of time. His approach puts a lot of attention and criticism on the International Monetary Fund during his analysis. Furthermore, the author takes a very case-based approach, focusing on countries most affected in the crisis - Thailand, Indonesia and South Korea. The author’s views on the causes for the crisis in South Korea will be used for this section as the causes of the crisis differed and were also separated on a case basis. (Ito, 2007)

He finds that the crisis in general and in the case of South Korea was more likely by liquidity problems and not solvency issues. If this is true, then the crisis was the result of herd behaviour, contagion and panic, not fundamentals.

Ito describes South Korea as being one of the strongest countries with very stable fundamentals. He acknowledges the issue of over investments in large conglomerates and the failures of several big ones preceding the crisis but he believes that these weren’t enough to cause the crisis.

Ito traces the beginning of the crisis to mid November 1996, explaining how the investors were afraid that Korean reserves would be depleted and a bank run occurred as they stopped accepting roll-overs. As the reserves were depleting the won was depreciating, together with the troubles of the neighbouring states and other contagion linkages this prompted the foreign banks to withdraw their fundings. (Ito, 2007)

The IMF offered contingency based deals in order to help alleviate the troubles. These deals were not successful as the promised capital packages were not successful at bolstering confidence. If anything, they spread more panic as they implied the general trouble. The packages also called for restructuring of the country and financial sector including more liberalisation which seemed counter-intuitive to the crisis. Ito raises the question whether allowing roll-overs and offering aid in the form of lender of last resort would have alleviated the crisis. (Ito, 2007, p.37)

As a conclusion the main causes of the crisis that we can summarise are:

1. The crisis came as a result of contagion and panic.
2. Investors started denying roll-overs, afraid that there wouldn’t be enough capital to cover reversals - herd mentality/self fulfilling prophecy.
3. Contagion and news from other states spread negative investor sentiments to Korea. Continuously depreciating exchange made paying foreign liabilities more difficult also in the eyes of the investors.
4. Troubles in the economy also existed, especially the non efficient chaebols, the over investment and bankruptcies but it wasn’t enough to cause crisis
5. True loss of reserves was hidden, and often deviated from official numbers
6. The IMF contingency based support failed to get the investors confidence back and called for structural changes. The advice and aid size coming from the IMF possibly only send further negative signals towards investors.

4.2.2. “Short-Term Capital Flows”

September 1999

Dani Rodrik - 52nd with 85.8 points
Andrés Velasco - RePEc ranking unavailable

Web of Science: 3 Citations
Google Scholar: 901 Citations
CitEc: 412 Citations
CiteSeerx: 76 Citations

This is a comprehensive paper looking generally at the role of short-term capital flows in recent crises around the world. The conclusions of the paper are rather neutral, stating that markets are volatile and crises will always occur, with their causes often being unclear and blamed on very different elements. Still, authors believe that illiquidity crises seem to have been more common recently and that short-term capital flows are a crucial element to them. (Rodrik and Velasco, 1999)

The paper also briefly discusses the case of South Korea. Roderick and Velasco draw parallels between the events leading to the 1997 crisis and the buildup towards the 1980 crisis in Korea. They explain how both scenarios involved rigid exchange rates and depreciation of currency couple with external shocks in the form of worsening terms of trade. Both scenarios involved a lot of international financing except for a key difference - the 1980 crisis consisted of medium to long-term liabilities while the 1997 crisis was mostly short-term liabilities. (Rodrik and Velasco, 1999)

This meant that during the troubling times, the capital reverse was not possible to same event as during the 1997 crisis. Since Korea relied heavily on short-term liabilities, international investors were able to reverse these, meaning that a larger surplus had to be gathered by the country, further deteriorating the exchange rate as well as growth. Interestingly, the author explains how international investors chose to switch to short-term financing for this very reason - to protect themselves after the 1980 incident. And as a conclusion, regardless if there were fundamental based of vulnerabilities based, the short-term capital flows have made the crisis much worse by introducing illiquidity issues. (Rodrik and Velasco, 1999, p.19)

As a conclusion the main causes of the crisis that we can summarise are:
1. Globalised international financial structure is volatile and crises will happen. Definite causes and answers are hard to identify and will change as orthodoxy changes.

2. Short-term capital flows are dangerous. They cause illiquidity issues if investors panic and get spooked.

3. Even if the causes of the crisis are fundamental based, the presence of a lot of short-term liabilities means that the crisis is more impactful as explained through the Korean case.

4.2.3. “Private Inflows when Crises are Anticipated: A Case Study of Korea”

2000

Michael P. Dooley - 791st with 956.77 points
Inseok Shin - RePEc ranking unavailable

Web of Science: 2 Citations
Google Scholar: 64 Citations
CitEc: 23 Citations
CiteSeerX: 14 Citations

The authors resort to an insurance model to explain the crisis in Korea. Because of this they do not believe that the crisis was caused by faulty macroeconomics or due to changes in private expectations. Rather the source of the problem lay in financial intermediation and in the government’s role in financial intermediation. Financial liberalisation was responsible for adding a new element to the unstable system which according to the model inevitably leads to crisis.

The authors explain the insurance model as the desire of the government to both insure the investments of residents against liabilities and to hold foreign assets to ensure themselves. However by insuring the local investments, it adds incentive for foreigners to purchase them. According to the model as long as three criteria are met, the scenario will always lead to a crisis: 1. Governments hold net positive assets; 2. Governments are ready to use these assets to cover failing liabilities; and 3. Foreigners have access to investments with possibilities of loss. One the foreign liabilities is equal to the reserves that the governments holds a crisis occurs as investors quickly sell of their stock to race for the insurance. (Dooley and Shin, 2000, p.11)

Insurance model explains that the government’s reserve end up supporting both the currency exchange and the investments opening themselves up to more vulnerabilities, making the source of the crisis also harder to identify.

Applying this model to the Korean case, the earlier mentioned guarantee or insurance falls on the banks and intermediaries. Thus, the authors claim that either the banks lacked risk assessment, or there was a lacking supervisory body or the international investors didn’t do their due diligence in terms of risk assessing.

From the beginning of 1990s and especially since 1994, the authors find the Korean banks took on increasing number of risks, lending more to small and medium businesses. Banks also started taking more foreign currency denominated loans. The authors believe that since loans were guaranteed banks didn’t self regulate as much. (Dooley and Shin, 2000)
The regulatory failure is explained by the authors through liberalisation. In the past regulation was conducted according to the traditional model, but after liberalisation new loopholes created new sources of vulnerabilities e.g. using off-shore banking for financing.

As a conclusion the main causes of the crisis that we can summarise are:

1. The government wanted to get foreign assets to use as reserve to defend both currency and offer guarantees for local investments
2. As Korea liberalised, there was more chances for capital inflow and more chance for foreigners to acquire local assets. According to the insurance model, this new development would lead to an inevitable crisis after liabilities exceeds the reserve.
3. Banks lacked self-assessment incentives due to government guarantees and overwhelming credit. Lending to small and medium businesses and risky projects became more common. Investment boom.
4. Regulatory bodies focused on the same criteria from the past, failing to adapt and modernise new monitoring systems. Lagging behind liberalisation.

4.2.4. “Volatility and Contagion in a Financially Integrated World: Lessons from East Asia’s Recent Experience.” (World Bank Study)

November 1998

Pedro Alba - RePEc ranking unavailable
Amar Bhattacharya - RePEc ranking unavailable
Stijn Claessens - 228th with 300.19 points
Swati Ghosh - RePEc ranking unavailable
Leonardo Hernandez - RePEc ranking unavailable

Web of Science: 2 Citations
Google Scholar: 124 Citations
CitEc: 27 Citations
CiteSeerx: 19 Citations

This section is a continuation from the general section but only applied to Korea so will be kept brief.

As a conclusion the main causes of the crisis that we can summarise are: (Alba et. al. 1998, p.48-9)

1. Chaebols conduct a lot of expansion and investment including outward FDI. The conglomerates were overextending and struggling to keep operations running.
2. Profitability and efficiency of the conglomerates was steadily falling prior to the crisis
3. They borrowed heavily from domestic and foreign sources in order to keep the operations going. The financial sector was extremely leveraged
4. Through a combination of contagion and uncovered vulnerabilities domestic banks were unable to roll-over short term debt
5. Exchange rate depreciated dramatically and interest rates rose. The country experienced illiquidity issues as more roll overs were denied and short-term capital reversed.

1999

Panicos O. Demetriades - 1895th with 2109.32
Bassam A. Fattouh - RePEc ranking unavailable

Web of Science: 6 Citations
Google Scholar: 53 Citations
CitEc: 7 Citations (Estimate)
CiteSeerx: 6 Citations

The authors explain that while the general crisis has two major explanations (fundamentals-caused or self-fulfilling) the Korean crisis is similarly ‘unclear’. The authors take a middle ground between the two sides explaining that weaknesses did exist in the form of unproductive credit usage but the crisis was only possible through shocks caused by herd behaviour of investors. They blame the liberalisation for attracting excessive credit which outgrew Korean guarantee potential. (Demetriades and Fattouh, 1999, pp.778-9)

The authors mention several macroeconomic factors which helped fuel the crisis such as growing current account deficit, devaluation of Chinese currency, depreciation of Japanese yen towards the dollar, smaller demand for specific exports and higher domestic costs (wages). However these are believed to be only contributing factors but incapable of causing the crisis on their own. (Demetriades and Fattouh, 1999, p.781)

The authors prefer to use the term unproductive loans, similar to non-performing loans. As a result of financial liberalisation there was a massive influx of investments. Partly due to macroeconomic issues many loans ended up under heavy pressure. The authors discard the moral hazard view rather explaining that soft-budget constraints - being able to keep borrowing funds for underperforming loans due to the lack of singalong mechanisms. These unproductive loans grew in numbers and very concentrated.(Demetriades and Fattouh, 1999, pp.786-9)

Demetriades and Fattouh explain that these structural problems were present without a crisis for a long period prior to the crisis. This is why financial liberalisation was the catalyst that tipped the situation. It allowed large quantities of short-term, foreign currency denominated to flow into the country and finance these unproductive loans. After that, the economy was vulnerable to investor sentiments, which manifested in 1997 as a loss of investor confidence following shocks coming from Thailand. Self-fulfilling mechanisms are essential to explaining the drastic reversals, according to the authors, while liberalisation is essential to explaining the crisis (as the government was capable of providing guarantees to domestic only loans). (Demetriades and Fattouh, 1999)

Finally, government decisions or at least implications of bailing out big corporations and decisions to defend the currency prompted further speculative attacks on the economy based self-fulfilling prophecies of negative expectations.

As a conclusion the main causes of the crisis that we can summarise are:
1. The Korean economy had important vulnerabilities and weaknesses. **Unproductive and non-performing loans** were common but disguised through further borrowing and lack of supervisory/distress singling mechanisms. **Inefficient credit usage. Soft-budget constraints.**

2. **Financial liberalisation exposed these problems.** Large quantities of short-term, foreign denominated capital was attracted which financed these loans.

3. **Loss of investor confidence** lead to a **self-fulfilling crisis**

4. **Domestic and neighbouring policy choices and news** created further bad expectations fuelling the self-fulfilling prophecies.

### 4.2.6. “IMF-Supported Programs in Indonesia, Korea, and Thailand”

1999

Anish Ghosh - 1103rd with 1288.87 points  
Timothy Lane - RePEc ranking unavailable  
Javier Hamann - RePEc ranking unavailable  
Steven Phillips - RePEc ranking unavailable  
Marianne Schulze-Ghattas - RePEc ranking unavailable  
Tsidi Tsikata - RePEc ranking unavailable

**Web of Science:** Not available  
**Google Scholar:** 424 Citations  
**CitEc:** 91 Citations  
**CiteSeerx:** 2 (Unreliable Data)

This is a very extensive report, which deals with the IMF-supported programs in several countries to alleviate the crisis. Thus the section on Korea and further the crisis causes are brief. A short summary is presented here. (Lane et. al. 1999)

As a conclusion the main causes of the crisis that we can summarise are:

1. Too much short-term debt against the country’s foreign reserves  
2. Concerns with the efficiency of chaebols  
3. Commitments to the IMF programs were unclear, doubts made any new announcements in regards to IMF changed ineffective  
4. **Chaebol problems:** Increase in the number of non performing loans, close ties with banks allowed preferential treatment to occur. Incentives to take more risks, moral hazard resulted in more investments in the property sector. (Lane et. al. 1999, p.10)  
5. Exports prices fell, especially for important products such as semiconductors (Lane et. al. 1999, p.13)  
6. Asset prices declined (bubble bursts) which also deteriorated the balance sheets of conglomerates

1999

Jang-Hee Yoo - RePEc ranking unavailable
Chub Woo Moon - RePEc ranking unavailable

Web of Science: 69 Citations
Google Scholar: 25 Citations
CitEc: 23 Citations
CiteSeerx: Not available

The authors use a historic approach and look at the development of the industry and financial sector in Korea. Through their explanations they show how the government influenced and encouraged certain specific sectors which led to the development of powerful conglomerates - Chaebols. These conglomerates ended up taking most of the blame for the financial crisis as they kept gathering more structural problems and undermining the economy, adding to vulnerabilities. (Yoo and Moon, 1999)

This included for instance, the reckless expansion by the chaebols vertically. Their motivation was to internalise all the points in production and relied on government support to achieve this. The authors believe that chaebols were more interested in quantity and market share as opposed to profit. On the other hand the authors agree that chaebols were responsible for bursts in development due to their size and access to funding but they still question the corporations efficiency. (Yoo and Moon, 1999, p.268)

The authors also describe a lack of supervisory/assessment role on the behalf of the banks, as there was a prevalence of policy loans, meaning that the loans were government directed so didn’t require much assessment. Due to being very restrictive, non-bank financial institutions became very popular which offered high-cost short-term loans. The authors also explain how the government borrowed heavily abroad and the guarantees further increased supply of foreign credit. (Yoo and Moon, 1999, p.271)

As a conclusion the main causes of the crisis that we can summarise are:

1. Inefficient Chaebols are huge conglomerates that relied on government support and expanded recklessly while borrowing funds continuously for questionable investments
2. Main banks were restricted in their roles. Non bank financial institutions became popular and offered expensive short-term loans.
3. Government heavily borrowed abroad
4. High quantity of short-term foreign debt was amassed
5. Weakening Japanese yen and contagion shocks from Thailand
6. Liberalisation encourage unproductive loans
The authors of this research attribute the Korean crisis to long term vulnerabilities: weak corporate and financial sector and hasty liberalisation. And short term problems being: the worsened export positions, big conglomerate bankruptcies and changes in investor sentiments. (Baliño and Ubide, 1999, p.61)

Generally we can see that according to the authors the crisis was in fact based on faulty fundamentals, thus the changes in investor expectations were a rational responses to uncovered vulnerabilities as opposed to irrational panic.

The authors describe a long history of Korean banks offering policy loans and having special, close relationships with chaebols under the directive of the government. Often being forced to bail-out the big conglomerates. The authors describe how in the 1990s the country liberalised much more, meaning that these old practices were not enforced and the government let go of some of its influence. However due to the bank’s overexposure and lack of proper standards and practices, they couldn’t transition to better risk assessment methods and the traditional practices remained with the conglomerates in power. (Baliño and Ubide, 1999, p.16)

The authors also describe faulty supervisory institutions which were lacking in capacity and influence. For instance the authors explain that the supervisory and regulatory institutions were not unified and weak in practice. Classifications of loans and accounting practices allowed companies to disguise the troubles for longer periods of time. The authors also find the laws for concentration of lending to be weak, which resulted in many chaebols receiving concentrated capital. Liquidity and loan composition regulations for banks also had loopholes. Finally, Korean banks not being allowed and deposit insurance acted as guarantees. (Baliño and Ubide, 1999)

As a conclusion the main causes of the crisis that we can summarise are:

1. Traditions and old practices have created a situation of overexposed banks and extremely big, unprofitable and vulnerable chaebols. Chaebols were vulnerable to cash flow shocks.
2. Financial liberalisation removed the government influence but regulation and supervision was very weak and inadequate, with loopholes allowing the old practices to continue.
3. Banks were unable to quickly acquire the required standards and practices for loan assessment. The combination of depositor guarantees and ‘too big to fail’ implicit understanding encouraged moral hazard.
4. Conglomerates expanded, often into unrelated, fields causing an investment boom. Demand for funds covered with short-term foreign capital.

5. Terms of trade deteriorated as demands for exports (especially semiconductors fell), which put pressure on the economy.

6. The government allowed many chaebols go bankrupt which had a domino effect on banks and the financial sector by sending alarming signals. End of ‘too big to fail’?

7. International investors responded by reversing capitals. The short-term, foreign denominated capital which was used to finance long-term projects domestically.

4.2.9. “The Korean Financial Crisis: an Asymmetric Information Perspective”

2000

Frederic Mishkin - 85th with 127.08 points
Joon-Ho Hahm - RePEc ranking unavailable

Web of Science: Not available
Google Scholar: 80 Citations
CitEc: 13 Citations (Estimate)
CiteSeerx: 14 Citations

The authors use an asymmetric information model to show how various institutions, especially the financial intermediaries such as banks, can send or receive signals affecting investments and loans based on various macroeconomic changes in the economy. This model also explains how various factors end up making it harder for banks to assess risk and invest in proper efficient projects.

For instance, if bank’s balance sheets deteriorates they are more likely to lend out and offer roll-overs to businesses which puts pressure on the corporate sector. Another example is interest rates increasing will mean that riskier projects get funded as less prudent borrowers end up applying for the higher interest loans. Finally if non-financial balance sheets deteriorate it also carries negative impacts on the economy, for instance fall in collateral or asset prices means that companies may find it harder to pay back or borrow more funds, it also encourages moral hazard and riskier projects as opposed to high net worth in which case companies are more prudent (with more to lose). Increase in interest rates increases the costs of firms, also having a negative effect on their balance sheets as costs rise. (Hahm and Mishkin, 2000, pp.22-5)

Financial liberalisation is a key event causing financial crisis. This is explained by a lending boom which channels loans into risky, unproductive loans (moral hazard). This is explained by international investors assuming loans are guaranteed by IMF or the government. In meantime domestically banks lack proper standards and staff who are capable of proper risk assessment. The country is also responsible for lacking proper regulations and supervision. As banks keep lending out, riskier projects start deteriorating their balance sheets which in turn eventually leads to contracting activity on the bank side. (Hahm and Mishkin, 2000, pp.25-6) Specifically in South Korean, the authors explain that the macroeconomic and fundamental values all signalled stability, especially in consideration with Korea’s expected potential. However, these values disguised the problems in the balance sheets and international leverage.
Hahm and Mishkin identify too much international leverage, specifically in the form of **short-term loans** and being **foreign denominated**. They state that “throughout the 1990s, the share of short-term liabilities out of total external liabilities remained at a level of more than 50%” which exceeded the foreign exchange reserve. (Hahm and Mishkin, 2000, p.30)

The authors find that the balance sheets of most commercial banks were consistently deteriorating up to the crisis. Furthermore, they find non bank financial institutions were even more to blame because they enjoyed more relaxed regulations they ended up investing their short-term liabilities into concentrated chaebols. Mishkin and Hahm also take note of the highly leveraged corporate sector, meaning that is was vulnerable to cash flow and other shocks. (Hahm and Mishkin, 2000, p.30)

Interestingly, the cause for the initial lending boom is not necessarily the financial liberalisation, but it has worsened the situation by increasing number and severity of vulnerabilities, for instance it increased the number of types of investments which could be made using the funding. There was also the lack of incentive for assessment of risk from both the banks and from the international investors. In fact, the situation may have favoured moral hazard, as investment deals were often approved by the size of the conglomerates. The bankruptcies of the fourteenth largest conglomerate on 23rd January 1997 was a major shocked as it took the ‘too big to fail’ atmosphere. At the same time deteriorating terms of trade put increasing pressure on the export-oriented conglomerates. (Hahm and Mishkin, 2000)

Finally, due to the vulnerabilities in the economy, contagion coming from Thailand and Korea’s seemingly inadequate reserves, the country experienced attacks on its currency. These attacks came in the form of capital and loan reversals as the currency itself was protected by more rigid laws.

As a conclusion the main causes of the crisis that we can summarise are:

1. Korea experienced an **investment boom**. Banks and non financial institutions channeled a lot of capital into often concentrated, inefficient conglomerates.

2. **Financial liberalisation** made it easier to borrow foreign capital, especially for non bank financial institutions. **Merchant banks** are emphasised as being ones with the more lax regulations.

3. Financial liberalisation left a void of **lacking risk assessment standards** (and well trained staff) and regulations, **supervisory institutions were also weak** or missing. **Moral Hazard**

4. Bank and non bank financial institution **balance sheets started deteriorating** due to external shocks and many non performing loans.

5. ‘Too big to fail’ understanding and other government guarantees encouraged investments.

6. External shocks came in the form of **worsening terms of trade** and **bankruptcies of big conglomerates**.

7. Investments, especially in huge conglomerates were highly **leveraged in short-term, foreign denominated capital**. Deteriorating financial institution’s balance sheets ended up putting immense pressure on these companies.

8. Korean currency came under attack through the reversals of capital and loans.
4.2.10. “Interpreting the Korean crisis: financial liberalisation, industrial policy and corporate governance”

May 1998

Ha-Joon Chang - RePEc ranking unavailable
Hong-Jae Park - RePEc ranking unavailable
Chul Gyue Yoo - RePEc ranking unavailable

Web of Science: 69 Citations
Google Scholar: 407 Citations
CitEc: 45 (Estimate)
CiteSeerx: 32 Citations

Although Ha-Joon Chang and the co-authors listed above are not registered or ranked highly in the RePEc system, Chang has had positive citation results in regards to Korean financial crisis over several papers. He also offers a more Korean view to dampen the western bias. His more lengthy, specific and elaborate research was chosen which was also co-authored with Hong-Jae Park and Chul Gyue Yoo.

The authors take a more anti-neoliberalism approach to describing the crisis. According to them the causes are excessive and unproductive investments. However, this was not the result of the government intervention and the economic system but rather the result of hasty deregulation and faulty financial liberalisation (especially capital controls). (Chang, Park and Yoo, 1998, p.735)

Ha-Joon Chang et. al. explain how before the financial liberalisation, Korea tightly regulated all the inflows and outflows of credit to keep the levels adequate. However, after a period of success (during the ‘miracle’ period) Korea has managed to amass a decent surplus. This and other factors such as the international and western community giving Korean firms better credit ratings directed Korea to more liberalisation. Eventually the Korean debt/GNP ratio became 22 percent in 1996 and 25 percent nearing the crisis, which were reasonable and acceptable numbers by World Bank standards. The main problem with the debt was the maturity structure with increasing and unsustainable favour towards short-term debt. Merchant banks were leading in these figures. (Chang, Park and Yoo, 1998, p.738)

The explanation for debt in general is found in the investment boom however the authors provide additional causes of the short-term bias. 1. Financial liberalisation placed more focus on deregulating short-term debt for example long-term borrowers were required to obtain additional permissions and had stricter information requirements. 2. Financial liberalisation would have had an effect on the interest rates on Korean banks, but due to the uncertain approach of the Korean government to liberalisation the expectations were unstable. Consequently, investors chose to use short-term loans which they rolled-over until the crisis as a security option. (Chang, Park and Yoo, 1998, p.739)

The second argumentation refutes the accusations of the industrial policy and policy loans that, according to the authors, western experts often accused Korea of doing. It is interesting that chaebols and over-investment in certain sectors are still considered in a bad light and as contributing factors. The authors explain that prior to the liberalisation movements government
would direct the conglomerates and companies into effective sectors while strict mechanisms and high entry barriers prevented over investment in the same sectors. After liberalisation, the government left a power vacuum which was picked up by the conglomerates who could influence the banks. Also due to more competition sectors experienced too much investment. (Chang, Park and Yoo, 1998, p.739-41)

Finally, Chang et. al. argue against the prevalence of moral hazard. They find faults in the argumentation explaining that most of the investments were stable and low profitability. Furthermore, there were no recent precedents to create the understanding of guarantees and bail out. The authors also point out that banks extended into merchant banks too, which were less likely (as an understanding) to be bailed out.

As a conclusion the main causes of the crisis that we can summarise are:

1. **Financial liberalisation.** Capital controls were lifted and foreign debt flowed into the country. Although the debt was serviceable in quantity but the problem was in the maturity structure. Deregulation happened in a way which favoured short-term debt.

2. **Deregulation, moving away from industrial policy and the government giving up influence** gave too much power to conglomerates. They could influence banks more easily and had more freedom. More competition and lack of coordination meant over-investment and over saturation of export goods. This in turn lead to worsening terms of trade.

3. Banks, especially the merchant banks were inexperienced with risk assessment standards

4. Lack of official government influence in the business sector gave rise to corruption, crony capitalism

5. Finally, in conclusion the authors also mention the importance of the panic factor as a likely cause.
5. Analysis and Synthesis of Rankings and Evaluation

5.1. Regarding the Data

5.1.1. The Preliminary Observations

After conducting the research, we are presented with an interlinked mesh counting numerous possible interrelated causes and factors. Tracing the factors start to notice some organisation amongst them as they follow an almost chronological or sequential pattern. Diagram 1 is a simplified summary showing the majority of the contributing factors found within the literature and how they relate to one another.

For example, some authors argued that contagion and panic was mostly an over-reaction to possible shocks or economic turbulences. However for their argument to stay valid they still rely on explanations involving either vulnerabilities, weaknesses in the financial sector or even possible
macroeconomic mismanagements that have lead to this path. An example of this approach is conducted by Steven Radelitt and Jeffrey Sachs. On the other hand, scholars who argued that unsound combination of fundamentals have lead to the crisis still resort to investors ‘reacting’ (but rationally) to a possible shock, or wake-up call. (Radelet and Sachs, 1998a)

In other words, one of the major disagreements - whether the triggering shocks actually uncovered disguised structural weaknesses in the financial system or if it was an overreaction by the investors are both causes that are linked to one another, as each one could not work without borrowing the elements from the other. In the end, it is rather a matter of finding the degree to which the investors were correct regarding their assessments of the troubles in the economy.

Another example that emphasises this point has been found in the research of Frederic Mishkin who, in his general explanation, would have been grouped simultaneously into faulty ‘macro-economic’, ‘financial liberalisation causing macro distortions’ and ‘vulnerable banking leveraging prone to speculative attacks’. In essence, through his asymmetric model he has covered almost every ‘distinct’ camp yet his explanations holds validity without contradicting his points. (Mishkin, 1999)

This way rather than grouping explanations into solidly defined camps as it was done by several earlier studies which have been mentioned in the literature review, it may be better to borrow common elements found in the majority of the explanations in order to help us understand which are the more accepted, while possibly pushing the less solid hypotheses towards the lower ends of the ranking.

Difference between symptoms of economic failures and actual causes contributing to them needs to be emphasised. The perfect example to illustrate this point is that the prevalence of short-term loans, denominated in foreign currency seems to be an almost universal element found in majority of the studies. Consequently, this element is often considered closer to being a symptom as it tends to have a larger number of possible explanations for such a policy. It is often also the indirect result of certain phenomena which didn’t necessarily intend to introduce. The investment boom, while a very good reason for the overheating of the economy requires further explanations regarding its origins. Finally, vulnerabilities within the banking sector/financial intermediaries end up being pseudo-symptom, as it was both caused by other factors but also had contributing vulnerabilities on its own merit, for this reason this factor ends up dropping in the ranking.

This way, it is believed that creating a general ranking is a better method for viewing the contributing factors than by simply grouping thinkers together. Very few of the arguments are actually mutually exclusive as it seems that the authors would often take somewhat neutral grounds, accepting many contributing factors and even showing doubts regarding their hypothesis being the sole explanation.

While we acknowledge a general convergence of ideas, there are definitely certain contested elements in the research which the authors would disagree about (which are some of the foundations of camps described by authors). Very similar questions have been raised by Furman, Stiglitz and et. al. (1998)
Some of these are:

- **The role of Financial Liberalisation**: Was it inherently responsible for the overheating of the economies making capital in-and-out flows too unrestricted? Were the countries simply not ready for financial liberalisation, did not build adequate foundation of regulation, supervision and standards? Has financial liberalisation exposed structural problems within the economies such as close ties between the government and the business sector (or rather distort a very efficient non-western financial system?)

- **Was the miracle real?** Were the policies suited better only at the beginning of development? Was the miracle system incompatible for integration with the volatile and changing world? Has the miracle worked better in the past but slowly lost their competitive elements or abandoned the positive features?

- **True fundamental problems, policies and vulnerabilities versus inherently volatile financial system.** This is one of the most important disagreements which either places the blame on the entire structure of global economy or the states undergoing financial crisis.

- **Contagion** This is an almost universally accepted mechanism of crisis transmission. The disagreement is related to the previous point, as the motivation for contagion is the key here. Was it a **wake-up call contagion** closer to exposing real weaknesses in the financial system or was it a **panic-based, self-fulfilling crisis** linking the countries together based on an overreaction. Possibly a third version of contagion exists which incorporates **institutional mechanisms** and could occur in either scenario such as exposure to a common lender.

By creating a ranking we are also making it easier to answer these questions as certain sides to these incompatible explanations will inevitably get higher ranked. Furthermore, the debate regarding the Asian Financial crisis inevitably deals with **neoliberal ideas**. Moving away from the traditional economies towards more market based, and undergoing the process of financial liberalisation just to enter into a period of crisis provides a great opportunity for this debate. Consequently, majority of the policies or elements which find themselves blamed for the crisis such as deregulation or keeping the pegged-exchange rate system carry connotations relating to the debate on neoliberalism.

### 5.1.2. Possible Bias

It has to be mentioned that the method favoured older works, both for ranking and for the selection process. The concentration of works is closest to the crisis and becomes much more sparse as time goes on. Newer works were finding it much more difficult to be. This isn’t necessarily a weakness of the study.

First, this can be explained by older and more established works finding it easier to gather citations, especially if they are deemed as material closer to the source. Secondly, the more distinguished authors would rarely revisit the topics in the same depth (a notable exception to this was Paul. R. Krugman who has conducted several studies, including drastically altering his position). And fourth, the integrity is supported by the fact that if older works are gathering these citation metrics then it means their theories are withstanding the test of time, while the lesser theories are being sieved out as they gather less attention.

The second issue was with the citation metrics and system. Certain services provided inconsistent results, often entirely failing to provide useful date. Thompson’s Reuters Web of Science also entirely failed to provide adequate results, meaning that it was only used for judging the validity of the works rather than ranking. Almost all citation services experienced problems with small degrees
of double citations and even incorrect original citations. In defence of using these methods, even if the resulted sample sizes were small they can still give a general feel and understanding of the importance of the work, if not for the ranking then for the selection process.

Finally, this research is prone to human error and studies may have been missed. However it can be said that if the newer studies were impactful enough they would have been covered by the method. Another observation that has to be noted is that while authors would not revisit the Asian financial crisis to create a new study with newer approaches, they often ended up conducting a rather early study and republishing and updating it with minor changes over the years instead. In such cases, the most recent revision was obtained.

5.2. The General Ranking of Causes contributing to the Asian Financial Crisis

The rankings was mostly based on a synthesis of RePEc, Google Scholar and CiteSeerX as Web of Science provided insufficient results and was therefore used only as a secondary or corroborating resource

The first research question of this study was:

1. According to the economic research and literature concerning itself with the causes of the Asian financial crisis; what is their ranking in the order of importance.

The Ranking

Thus after having analysed the works of experts concerned with the general causes of the East Asian financial and using the citation metrics and the frequency of the ideas we can come up with the following ranking (starting with the most important):

1. Underdeveloped Economies going through hasty liberalisation with under regulated and under supervised results.

Indirectly or directly, the first ranking places the blame on financial liberalisation. Authors such as Radelet and Sachs argued that going through financial liberalisation made the country more vulnerable to a self-fulfilling crisis. Krugman argued that globalising meant allowing large quantities of volatile capital inflows into their countries. Many experts agreed that financial liberalisation was under regulated and countries had low supervisory institutions and generally lacking of prudential regulation. Others such as Wade and Veneroso argued financial liberalisation was responsible for ruining or distorting the traditional east asian model, essentially destroying the “Asian miracle” and accused it of being a mechanism to promote western imperialism. Mishkin argued that financial liberalisation gave rise to asymmetric information problems within the market. Chang and Velasco argued that financial liberalisation was an important ‘catalyst’ which made economies even more vulnerable and susceptible to financial panic, similar argument was made by Alba at al. Corsetti et. al. who argued that specific fundamentals were the cause of the crisis blamed financial liberalisation for introducing more of them and making such as more short-term loans.

(Radelet and Sachs, 1998a; see also Krugman, 1998; see also Mishkin, 1999; see also Wade and Veneroso, 1998; see also Chang and Velasco, 1998; see also Alba et. al.,1998 ;see also Corsetti et. al., 1999)
If we end up agreeing with this point then the bulk of short-term, foreign capital has been primarily an outcome of financial liberalisation as it has removed the so-called ‘financial repression’ faster than a proper body prudence could develop. Furthermore, many experts such as Ha-Joon Chang argue that financial liberalisation was strongly biased towards freeing short-term loans as opposed to long-term and FDI. Through this argument the blame also falls onto the banks and financial institutions as they lacked proper experience, standards and staff to be able to achieve proper risk-assessment. Inefficient and inadequate investments were possibly made because while the economy had very strong pull factors, the intermediaries simply weren’t able to keep up with the growing inflows of capital and had to channel them fast at the cost of prudence. Financial liberalisation also becomes the crucial key in the insurance model argued by Chinn, Dooley and Shrestha, as it introduced the third component (foreign access to domestically insured investments) of the three required to create an inevitable crisis (government reserve, willingness of the government to sell reserve as a guarantee and the foreign access to domestic investments). (Chang, 1998; see also Chinn, Dooley and Shrestha, 1999)

The two main lacking prudential measures that were necessary were strong supervisory institutions which would oversee investment behaviour and high standards within financial intermediaries. Both of these points are easier labeled than fixed as both are gradual processes that require planning and thorough policy consideration. The often discussed criticism of under-staffed and under experienced financial regulations is also something that could only be improved gradually to increase their standards. This implies that while dramatically speeding up development of prudence in these areas is not possible, financial liberalisation on the other hand can slow down to be more gradual to allow the prudence and regulation to keep up at an appropriate pace.

2. Inherently volatile financial system and panic based, self-fulfilling crisis and criticism of the IMF

This point is a persistent element of the international financial system according to which every economy is constantly bombarded with shocks, and vulnerable economies are susceptible to them. However these studies still lean towards overreaction by investors, even if vulnerabilities were present. Volatile financial system prone to panic and herding made the core argument for some studies as argued Radelet and Sachs. Although our research shows that there were many highly ranked fundamental-based weaknesses studies majority of those fundamental based arguments relied heavily on the volatility and panic based elements a prime example is the study by Chang and Velasco who argued that the East Asian economies were gathering an increasing number of vulnerabilities which eventually set of a self-fulfilling crisis. Kaminsky and Reinhart is another example of experts holding similar views. Golfajn and Baig observed how the affected countries were much more synchronised during crisis, even with absence of fundamentals or bad news. Kregel, by using the Minsky model even argued for the necessity of a strong government that could provide some safety against the international volatility. (Radelet and Sachs, 1998a; see also Chang and Velasco, 1998; see also Kaminsky and Reinhart, 1998; see also Goldfajn and Baig, 1998; see also Kregel, 1998)

These explanations carries several implications such as the need to look for solutions within the global financial community (such as dealing with issues like cascading information and herding) while at the same time taking a rather cautious approach to entering the global market. Secondly and probably more importantly, this implies that it was an illiquidity crisis first and a fundamentals/
vulnerability based crisis second. Firms ended up investing the capital into long term projects and sometimes assets, due to the shocks and crisis and their high leveraged position they would have to sell those project without redeeming their expected profits in addition to possibly setting contagion-based fall in prices. This way the firms are unable to pay back their loans. This means that the use of a lender of last resort through the assistance of the IMF and the governments would be the appropriate path instead of restructuring as they would be able to provide the bridge capital which could have helped them complete those investments and pay off both loans.

Most criticism of IMF policies and recommendations also stems from this point. Under the assumption that illiquidity was in fact the problem it follows that roll-overs and a lender of last resort may have alleviated the problem. The faults of the IMF lay primarily in two problems: 1. Inadequate financial aid packages which weren’t enough to cover the liabilities and restore confidence of investors and 2. They came with contingencies which recommended or forced structural changes throughout the economy which only further deteriorated the confidence of investors. As argued by Mishkin, the solution would be to provide adequate levels of financial aid in order to restore confidence and ‘restart’ the economy, instead of trying to restructure it. Radelet and Sachs and Feldstein were also critical of the IMF interventions blaming them for further deteriorating the confidence of investors. (Radelet and Sachs, 1998a; see also Mishkin, 1999; see also Feldstein, 1998)

3. Macroeconomic mistakes: Pegged-exchange system, high-domestic interest rates, investment boom and inadequate reserves

The preceding this one explained how the volatile financial system would lead to crisis after amassing too many vulnerabilities. In the East Asian crisis there were two major forces that created vulnerabilities. The first one came from the West in the form of financial liberalisation as was described by the first ranked cause. The second factor was the domestic policies created by the government. These are the macroeconomic developments and policies, especially the high domestic interest rate by international standards which acted as a pull factor by international investors and fuelled an investment boom and the pegged currency exchange system supported by the government’s reserve which acted as a guarantee for a credible stable economy and immunity from any currency related shocks. This was argued by Alba, Bhattacharya et. al who also noted how the security provided by the pegged system decreased the incentives to hedge risks. Feldstein especially focused on the unsustainable pegged-exchange rate as it depended on the size of the reserves. (Alba et. al, 1998; see also Felstein, 1998)

On their own these policies rarely make a solid argumentation but are frequently argued by experts after being combined with financial liberalisation. A perfect example of this is the study by Corbett and Vines as the combination fulfils the Mundell-Flemming according to which a crisis would be inevitable. (Corbett and Vines, 1999)

Furthermore, an investment boom, is often regarded as a major contributing factor which, as was discussed earlier is closer to a symptom of other economic problems. The more likely explanation for the investment boom are the macroeconomic policies, combined with financial liberalisation. The two policies combined provided too many incentives and (perceived) safeties for investors which explains the high inflow of capital.

An additional problem with an investment boom is that it is self-reinforcing. As expectations and investments were growing, so was the optimism of investors. This often has adverse effects on risk-
assessment as general expectations are increased, which was argued by Edison et. al. If investors and speculators accept that the prices will continue rising it forms grounds for bubbles for form, especially around assets. An investment boom also leads to higher supply prices, this was part of the argument presented by Corsetti et. al. as they blamed the pegged-exchange rate for the real appreciation. (Edison, Luangaram and Miller, 2000; see also Corsetti et. al., 1999)

4. Highly leveraged balance sheets. Over-exposed banks and Companies susceptible to cash flow distortions

As discussed in 5.1.1. the banking sector is being considered a pseudo-symptom. The reasoning behind this is that while the banking sector was vulnerable, the true causes stemmed from financial liberalisation (as it restructured policies and removed government control and from the macro-economic governmental policies such as the investment boom and pegged currency which gave investors unhealthy incentives.

Financial intermediaries are often regarded as the culmination of trouble by some authors as they find that they were responsible for taking the bulk of short-term credit and through the lack of prudence and supervision channeling it into domestic, long-term projects. Thus, simultaneously exposing the investments to two compounding risks of currency shocks and cash-flow shocks. Mishkin especially emphasises the banking balance sheets as crucial element in the crisis. Corsetti et. a. also specifically describe debt composition as an important contributing factor, especially with the decreasing foreign assets to act as a hedge. (Corsetti et. al., 1999; see also Mishkin, 1999)

5. Moral Hazard and Crony Capitalism

This is a fairly popular yet contested factors, so it finds itself lower in the ranks. Generally the moral hazard argument explains how banks or companies would choose very risky, reckless but high yield investments if they knew they could socialise the costs. The moral hazard argument is very common and is brought up frequently by experts. The argument supported with better results and found more frequently is the one attributing moral hazard to the banking sector and financial intermediaries.

This also synchronises with the factor ranked first as both government guarantees (explicit or implicit) and the deregulation of a financial sector would be likely paths to introduce moral hazard.

According to these authors such as Krugman, Goldstein, Frankel, Quigley, Kaminsky and Reinhart and many others moral hazard occurs either through explicit guarantees such as depositor insurance in banking which leads investors to make riskier investments for higher possible turnout. The pegged-currency exchange is another indirect guarantee, as while government credibly holds the peg the investors feels they are secure currency shocks. Krugman later altered his position on moral hazard, downplaying this phenomenon. (Krugman, 1998a; see also Goldstein, 1998; see also Frankel, 2000; see also Quigley, 2001; see also Kaminsky and Reinhart, 1998)

Another form of moral hazard is connected to both financial liberalisation and macroeconomic positions. As large quantities of foreign capital was inflowing into banks with low regulations and little experience it made it harder to keep up with such volumes and risk assessment may have deteriorated.
An additional danger of moral hazard is argued by Edison et. al - as faulty investments are made, if the economy experiences shocks, the companies first to be adversely affected are the imprudent ones and if they sell their assets it ends up lowering the general asset prices which also make the leveraged backbone of prudent firms. Consequently, a domino-effect ensues. Similar approach is taken by the Minsky model accounts. (Edison, Luangaram and Miller, 2000)

An important opponent of the moral hazard explanations is Ha-Joon Chang who argued that since the investors and managers themselves weren’t protected but rather their depositors and clients, and as their reputation still gets damaged if they fail it makes the moral hazard argument a little more dubious.

Crony capitalism has been argued by several key experts such as Frankel and Goldstein but tends to be biased toward earlier account of the crisis. These explanations usually end up blaming the traditional financial system, which was once hailed as a miracle, for the prevalence of policy loans and very close and inefficient government ties. (Chang, 2000; see also Frankel, 2000 ; see also Goldstein, 1998)

6. Contagion

Contagion is an extremely common mechanism of transmission found in almost every analysis. It is a key element; however it is ranked relatively low because it is depended on other factors to create a crisis. The contagion explanation that was more frequent, with better results and correlated our list better was a “wake up call” contagion meaning that once Thailand began experiencing the external shocks the crisis spread to the neighbouring states because the vulnerabilities were ‘uncovered’.

One explanation for this mechanism is that after investors experience losses in part of their portfolio they re-assess other investments, this can also be done by the media, financial analysts and international organisations and rating agencies. Another similar mechanism explains how investors may become generally more prudent and raise their thresholds for loans and investments, thus essentially downgrading previously acceptable loans. Kaminsky and Reinhart apply this logic, while explaining the “common lender” exposure by international banks. (Kaminsky and Reinhart, 1998)

Adhering to the cohesiveness of this ranking, the investors behaviour was still an over-reaction and although weaknesses were ‘punished’ by the crisis, it also affected prudential organisation. The approaches using a Minsky model provide a great analogy for this using the shifting ‘ponzi’ financing explanations such as the paper by Jan Kregel. In other words perhaps important vulnerabilities were discovered, such as the dangerously leveraged financial system but the very danger only occurs if the investors panic and produce a self-fulfilling crisis. (Kregel, 1998)

On the other hand, this is probably still the crux of the disagreement where explanations remain a little inconsistent. While we can say that vulnerabilities caused the panic, it still hard to truly answer whether the reaction of the market was fully rational and proportional to the vulnerabilities described within these rankings.

7. Supply-side and External Shocks

Supply side or external shocks are explanations which usually explain why the terms of trade worsened in the crisis stricken countries. The explanations focus on why exports sales have started
faltering. Jenny Corbett and David Vines present several key reasons. The major explanations involve the 1. Development of the Chinese export meaning more competition (and the devalue of the Renminbi) 2. Weakening of the Japanese Yen 3. Investment Boom increasing domestic supply costs and 4. Strengthening of the US dollar. Furthermore, specific improvements in technologies made them cheaper, especially semiconductors, which had an even more adverse effect on technology orientated export countries such as South Korea as has been pointed out by Mckibbin and Martin. (Mckibbin and Martin, 1998)

Several of these factors grouped together, appear frequently throughout the research but often take a secondary role to causing the crisis. Very often these are considered to be triggers or shocks rather than actual causes. In other words, they are either responsible for trigger the change in investor sentiment which causes a panic-based crisis or are responsible for uncovering vulnerabilities within the system by influencing the cash-flow shock susceptible economy.

Some of the supply-side causes are also attributed to the pegged exchange rate and the investment boom as it eventually lead to increasing domestic prices as pointed out by Corsetti et. al. (Corsetti et. al., 1999)

If we consider the supply-side in the context of vulnerabilities or a inherently volatile financial system then these are simply the expected shocks which happened to coincide with the build-up of enough vulnerabilities to cause the crisis. For this reason they are ranked lower than other causes. Possibly even replaceable by any other triggering ‘shocks’.

5.3. The Ranking of Causes contributing to the Korean Financial Crisis

The second research question of this study was:

2. According to the economic research and literature on the causes of the Asian financial crisis in South Korea; what is their ranking in the order of importance.

This chapter aims to answer it by creating a ranking for the South Korean case based on the more specific literature. Due to the causes being similar, additional information will only be provided for the unique cases.

1. Corporate Sector Vulnerabilities and inefficiencies

This point was made by many researchers such as Alba et. al., Ha-Joon Chang et. al., Lane et. al., Yoo and Moon and many others. The major points of those more critical of the government policies argued that the government allowed these conglomerate to develop and concentrate as a result of policy loans and preferential treatment. Alba, Claessens et. al. point out how the chaebols became increasingly leveraged while they were overexposing themselves with continued investment, including outward FDI. Hahm and Mishkin explain how with the addition of financial liberalisation and the ‘too big to fail’ understanding conglomerates were able to borrow excessive foreign capital. (Alba et. al. 1998; see also Chang, Park and Yoo, 1998; see also Lane et. al. 1998; see also Yoo and Moon, 1999; see also Hahm and Mishkin, 2000)

As a result, unproductive loans, for example in real estate and ones susceptible to shocks and contagion began pressuring the conglomerates and the financial intermediaries.
Ha-Joon Chang for instance explains how the lack of government control resulted in the rise of moral hazard and crony capitalism and also explain the unproductive investments made by chaebols such as reckless expansion. (Chang, Park and Yoo, 1998)

2. Financial Liberalisation and Government Policies

Generally similar accounts to general explanation with the additional focus on making it easier for conglomerates to borrow international funds, especially through merchant banks as was noted by Ha-Joon Chang et. al. Demetriades and Fattouh also discuss soft-budget constraints which existed in South Korea and provided companies with the ability to request roll-overs on loans without providing any feedback regarding the performance of the loans. (Chang, Park and Yoo, 1998; see also Demetriades and Fattouh, 1999)

The unexpected decisions to let important conglomerates go bankrupt has also been considered as responsible for sending signals to investors and other conglomerates spreading panic.

3. Inherently volatile financial system

Once again an important point which is both used in explanations involving a self-fulfilling prophecy (and thus illiquidity) as was argued by Ito. Or a crucial part of the conglomerates exposure to international markets. As argued by Alba, et. al that conglomerates became dangerously leveraged to international investors or the Dooley and Shin involving the insurance model. In both models, the conglomerates exceed the reserves of the South Korean government by borrowing large quantities of capital abroad. This results in important sectors of the South Korean industry highly susceptible to investor sentiment, be it rational or not. (Alba et. al. 1998; see also Dooley and Shin, 2000)

4. Contagion - ‘Wake up’

Since most of the accounts tend to believe that important industrial sectors were in fact under-performing, majority of the contagion interpretations end up taking the form of a ‘wake up’ contagion. This means that as a result of the crisis in Thailand the investors reassess their portfolios to uncover vulnerabilities. Another possible mechanism is lowering investment exposure which creates cash flow problems for companies.

5. Moral Hazard, Crony capitalism Supply Side External Shocks

The occurrence of moral hazard and crony capitalism seems to be more accepted in the South Korea case especially in regards to the chaebols. Such accounts can be found in Lane et. al. and Baliño and Ubide. Ha-Joon Chang et. al. also agreed the occurrence of moral hazard and crony capitalism but only as a result of the diminished government influence post financial liberalisation. Hahm and Mishkin also emphasise deteriorating terms of trade as a possible contributing factor. The semiconductor falling in prices is considered a more important cause for South Korea than other countries. (Baliño and Ubide, 1999; see also Hahm and Mishkin 2000; see also Chang, Park and Yoo, 1998)

5.4. Comparison and Impact of the results
The third research question is discussed in this chapter:

3. How do the ranking of causes for the Asian Financial crisis for South Korea differ from the ones for the entire East Asian region and what are the possible reasons for this, all based on economic literature.

<table>
<thead>
<tr>
<th>General Causes of Crisis</th>
<th>Case Study: Causes of Crisis in South Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Underdeveloped Economies going through hasty liberalisation with under regulated and under supervised results.</td>
<td>1. Corporate Sector Vulnerabilities and inefficiencies - Chaebols</td>
</tr>
<tr>
<td>3. Macroeconomic mistakes: Pegged-exchange system and high-domestic interest rates and Investment Boom and Inadequate reserve</td>
<td>3. Inherently volatile financial system</td>
</tr>
<tr>
<td>6. Contagion</td>
<td></td>
</tr>
<tr>
<td>7. Supply-side and External Shocks</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 3. “RANKING OF CAUSES OF THE EAST ASIAN FINANCIAL CRISIS”

The previous two chapter have presented the rankings which were created as a result of this study in descending order of importance as determined by citation analysis. The Asian financial crisis is a very convoluted topic with a very complex interplay of factors therefore it is virtually impossible to fully blame the crisis on a single element.

Therefore this research agrees with the approach of stacking vulnerabilities which make economies susceptible to a number of shocks and distortions such as the supply side shocks. Rankings are assigned to emphasise the elements which were more important, inherent and apparent during the crisis. It is unclear whether some of these elements alone would be able to start a crisis but a combination would definitely make the crisis more probable. Furthermore, some of the vulnerabilities described on their own may not pose much of a risk to the economy but certain combination can exponentially elevate the risks, the best example of this would be having a fixed or pegged-exchanged rate while simultaneously running an expansionary policy with high interest rates and allowing foreigners the ability to have direct access to the market. By relying on this approach we are able to incorporate a majority of the causes into our analysis and avoid contradictions.

Above we are presented with the comparison of the two ranking systems. As we can see the ranking is very similar, the same mechanisms and elements are present in both explanations with minor differences. The major difference between the ranking is the prevalence and focus on the corporate inefficiencies within the South Korean interpretations as opposed to the general explanation.
The South Korean economy was unique because it was considered in a league above the other discussed East Asian countries affected by the crisis. It was a much more developed country with a strong technological export sector. When the crisis reached and spread through South Korea it came as a shock to the world. Contagion and financial panic was not enough to explain this, while similar fundamentals were extremely strong.

Possibly this is the reason why many experts focused on the growing inefficiencies within the corporate sector. The chaebols have been the result of long periods of government sanctioned development programs which resulted in highly concentrated and massive conglomerates. As Korea was nearing the crisis, these conglomerates were showing more signs of inefficiencies and loosing productivity. They were becoming too big and the ‘too big to fail’ understanding became one of the most popular explanations for the prevalence of moral hazard within these organisations. Financial liberalisation has had two negative effects on them 1. less government control and 2. easier access to foreign capital. This meant that they ended up leveraging themselves beyond the capabilities of the South Korean government and became vulnerable to international investor sentiment. This way the problems with conglomerates play a central role during the crisis in South Korea, making it unique.

The main disagreement was with the formation of the conglomerates. Some authors, such as the ones defending the IMF, argued that this was a result of a traditionally inefficient economy based on close-links between the government, moral hazard and even crony capitalism. While the opposing side, such as the view of Ha-Joon Chang argued that although the conglomerates have grown to be too powerful and inefficient, this was actually a result of deregulation and downplaying the government’s influence which previously supervised them. One view would have us restructure the economy while the other would probably prefer the return of the stronger government influence. (Chang, Park and Yoo, 1998)
6. Conclusion

Closing Remarks and Consideration of Future Studies

After the crisis ended, most of the countries in East Asia bounced back fairly quickly, after several years eventually restoring most of their lost productivity. Yet it also provides us with many crucial lessons regarding the development of markets and interacting in an interdependent and globalised world.

As we saw that many approaches exist to describe the events which have unfolded in 1997 coming from very different angles. An attempt was made at trying to use the citation metric system in order to conduct a meta-analysis on the East Asian financial crisis. And although not perfect, the method has helped us sieve through some of the countless accounts and give them a little order.

In the end, this research finds that the bias, at least in the general sense for the entire regions falls on the inherently dangerous and volatile markets. Short-term capital flows, often called ‘hot money’, coming from abroad is extremely dangerous to the receiving countries. While these types of loans provide some illusion of security to individual investors, in the macro terms the costs from panic and self-fulfilling crisis multiplies and nations, investors and the international community must bear its weight.

Essentially this also warns us about neoliberal approaches and under regulated market economies. A strong foundations and well-thought out regulations, supervision and standards of prudence are essential to protecting an economy from crisis. Both from the domestic wrongdoings and the dangers coming from the international system. Of course, as Dani Rodrik pointed out, this is much more easily said than done and while our approaches to financial security and stability evolve and change over the years, the volatility of the financial system remains to be the single constant. Strong institutional developments come forth as priorities for the banking sector, encouraging prudence and a high standard of risk assessment is a crucial component of emerging market’s path to globalisation. Liberalisation lacking regulation and supervision is extremely dangerous as it leaves young fragile economies at the mercy of the inherently volatile financial systems. (Rodrik, 1999) Emerging markets should also try develop their bonds and equity markets as the long-term sustainable development plan as these offer more stability and act as a natural value-assessment institution.

Risk-assessment is essential to upholding stability, yet seems to be repeated again over the years as we saw for instance in the subprime mortgage crisis. Perhaps Philip Arestis and Murray Glickman were correct to remind us of the Minsky argumentation regarding the prevalence of constant financial-rent seeking innovation by individuals. (Arestis and Glickman, 2002)

We have also seen that certain macroeconomic policies are either inevitably incompatible or very risky to sustain. This was true for keeping a pegged exchange rate simultaneously with expansionary policies which may have lead to the overheating economy and put pressure on other elements such as risk-assessment. Higher reserves for both countries and banks is another important method of lowering the probability of a bank run and slows down possible investment booms.
Consequently this also slows down growth, thus finding the perfect balance between these two sides is the key for healthy and sustainable development.

South Korea was an interesting case to examine because unlike the other economies, Korea was regarded as a much more developed and successful economy. Similar lessons and causes were found to be true with the addition of the powerful chaebols who made up a crucial part of the Korean economy but were losing their efficiency. Majority of the authors examined agreed that these conglomerates had enough power to influence the banking sector. And through financial liberalisation, channels were opened to receive large quantities of foreign debt. Through the lack of regulation and supervision these conglomerates were able to fund inefficient projects and expansions.

Overall, the Asian financial crisis will still harbour many disagreements in academia and economic policy, even if more information and more accurate data becomes available simply because there were too many elements at play. However, some important lessons have still been derived from this.

Regarding the tools used for this methodology, we can agree that they are becoming more widespread and increasingly accessible, especially as they acquire access to newer and larger quantities of scientific research. The citation services themselves are becoming better programmed in order to constantly improve their standards. They will remain vital tools in helping us conduct academic research and possibly only get more insightful. There is a lot of possible directions to take the future studies. For instance, results can be tested categorised based on geographical regions or institutions in order to look for bias. These tools could also benefit from the network analysis approach.
7. References


Chowdhury, Anis, Associate Professor of Economics Anis Chowdhury, and Akhtar Hossain. Monetary and Financial Policies in Developing Countries: Growth and Stabilization. Routledge, 2003.


Frankel, Jeffrey A. “Panel Presentation: The Asian Model, the Miracle, the Crisis, and the Fund.” NBER, January 1, 2000, 327–37.


8. Appendix

8.1. Appendix 1 - RePEc Configurations

Chosen criteria for RePEc’s top 5% economists rankings:

Geometric mean of rankings following 29 methods with the best and worst score for each of the authors neglected:

1. Number of Distinct Works, Weighted by Simple Impact Factor
2. Number of Distinct Works, Weighted by Recursive Impact Factor
3. Number of Distinct Works, Weighted by Number of Authors
4. Number of Distinct Works, Weighted by Number of Authors and Simple Impact Factors
5. Number of Distinct Works, Weighted by Number of Authors and Recursive Impact Factors
6. Number of Citations
7. Number of Citations, Discounted by Citation Age
8. Number of Citations, Weighted by Simple Impact Factor
9. Number of Citations, Weighted by Simple Impact Factor, Discounted by Citation Age
10. Number of Citations, Weighted by Recursive Impact Factor
11. Number of Citations, Weighted by Recursive Impact Factor, Discounted by Citation Age
12. Number of Citations, Weighted by Number of Authors
13. Number of Citations, Weighted by Number of Authors, Discounted by Citation Age
14. Number of Citations, Weighted by Number of Authors and Simple Impact Factors
15. Number of Citations, Weighted by Number of Authors and Simple Impact Factors, Discounted by Citation Age
16. Number of Citations, Weighted by Number of Authors and Recursive Impact Factors
17. Number of Citations, Weighted by Number of Authors and Recursive Impact Factors, Discounted by Citation Age
18. H-index
19. Number of Registered Citing Authors
20. Number of Registered Citing Authors, Weighted by Rank (Max. 1 per Author)
21. Number of Journal Pages
22. Number of Journal Pages, Weighted by Simple Impact Factor
23. Number of Journal Pages, Weighted by Recursive Impact Factor
24. Number of Journal Pages, Weighted by Number of Authors
25. Number of Journal Pages, Weighted by Number of Authors and Simple Impact Factors
26. Number of Journal Pages, Weighted by Number of Authors and Recursive Impact Factors
27. Close: Closeness measure in co-authorship network
28. Betweenn: Betweenness measure in co-authorship network
29. Breadth of citations across fields

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## 8.2. Appendix 2 - Summary Tables

### Causes of the 1997 East Asian Financial Crisis according to Academia

<table>
<thead>
<tr>
<th>Date</th>
<th>Authors</th>
<th>REPEE Rank (Single ranking of best)</th>
<th>Google Scholar</th>
<th>Web of Science</th>
<th>CitEc</th>
<th>Citees</th>
<th>Keywords/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1996</td>
<td>Guicarlo Corsetti, Nouriel Roubini, Paolo Prentin</td>
<td>357 (403.19) 880 (1063.37) 1013 (1333.38)</td>
<td>1550</td>
<td>170</td>
<td>253</td>
<td>304</td>
<td>Moral Hazard, Underdeveloped financial structure, Financial Liberalisation, Debt Compensation (too much Short-term, too much foreign debt), Pegged currency, investment boom and overheating and Political instability.</td>
</tr>
<tr>
<td>August 1998</td>
<td>Steven Radelet, Jeffrey Sachs</td>
<td>No Ranking No Ranking</td>
<td>3267</td>
<td>18</td>
<td>340</td>
<td>33</td>
<td>Inherently volatile financial markets, Countries were vulnerable, Self-fulfilling prophecies, Financial liberalisation increased vulnerability, Illiquidity crisis, Contagion (overreaction).</td>
</tr>
<tr>
<td>January 1998</td>
<td>Paul R. Krugman</td>
<td>31 (54.58)</td>
<td>1809</td>
<td>5</td>
<td>337</td>
<td>88</td>
<td>Moral Hazard by intermediary financial companies, Government guarantees, Globalisation, Large capital inflows, BoC Risk Assessment by International Investors.</td>
</tr>
<tr>
<td>1999</td>
<td>Paul R. Krugman</td>
<td>31 (54.58)</td>
<td>1401</td>
<td>104</td>
<td>429</td>
<td>227</td>
<td>Determination of company balance sheets, inherent fragility of the market, Currency-debt mismatch, Short-term debt, highly leveraged and Self-fulfilling prophecies.</td>
</tr>
<tr>
<td>June 1998</td>
<td>Morris Goldstein</td>
<td>1174 (1308.45)</td>
<td>951</td>
<td>2</td>
<td>221</td>
<td>5</td>
<td>Weak and Vulnerable Financial System, Crony capitalism and moral hazard, Large inflows of capital, current account deficit, Deteriorating currency exchange and loss of terms of trade.</td>
</tr>
<tr>
<td>April 1999</td>
<td>Frederic Mishkin</td>
<td>89 (128.74)</td>
<td>521</td>
<td>NA</td>
<td>163</td>
<td>75</td>
<td>Asymmetric model: Vulnerabilities in the financial system. Financial liberalisation, Investment boom, Moral Hazard, Short-term, foreign debt.</td>
</tr>
<tr>
<td>1998</td>
<td>Jeffrey Alexander Fungiel</td>
<td>36 (82.1)</td>
<td>86</td>
<td>1</td>
<td>18</td>
<td>5</td>
<td>Short-term and foreign denominated loans, Moral Hazard and crony capitalism, Growing currency account deficit,</td>
</tr>
</tbody>
</table>

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Note: By using the asymmetric model, this paper lies together opposing sides.
<table>
<thead>
<tr>
<th>Date</th>
<th>Authors</th>
<th>HepRC Rank</th>
<th>Google Scholar</th>
<th>Web of Science</th>
<th>CitEc</th>
<th>Citeseer</th>
<th>Main Causes</th>
<th>Keywords/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Insurance Model as an Explanation (average of two articles)</td>
<td>April 1999 and 2000 Menzes D. Chinn Michael P. Dooley Sona Shrestha</td>
<td>287 (378.18)</td>
<td>141</td>
<td>42</td>
<td>40</td>
<td>58 Insurance crisis model. Three elements were met which lead to inevitable self- fulfilling prophecy through speculative attacks. Governments had assets and were ready to defend their currency. Liberalisation allowed capital inflow which completed the model.</td>
<td>Caus: Fundamentals, Financial Liberalisation</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Authors</td>
<td>RepEC Rank (Single ranking of best)</td>
<td>Google Scholar</td>
<td>Web of Science</td>
<td>CitEc</td>
<td>Citeseer</td>
<td>Main Causes</td>
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<tr>
<td>August 1998</td>
<td>Mark P Taylor and Lucre Semo</td>
<td>186 (247.31)</td>
<td>427 (542.55)</td>
<td>186</td>
<td>47</td>
<td>56</td>
<td>Lack of prudential regulations and risk assessment and government guarantees lead to moral hazard. This created an asset price bubble</td>
<td>Cus: Fundamentals, Lack of regulations, guarantees, Asset price bubble, Inevitable crisis</td>
</tr>
<tr>
<td>May 2009</td>
<td>Aaron Tornell</td>
<td>620 (1099.05)</td>
<td>214</td>
<td>NA</td>
<td>69</td>
<td></td>
<td>Vulnerable fundamentals - weak bank sector, low reserves. Lending boom and real currency appreciation. States experience shocks which sets of investors.</td>
<td>Cus: Vulnerable through fundamentals (Weak bank and low reserves) Self-fulfilling crisis, panic as a response to shocks.</td>
</tr>
<tr>
<td>Date</td>
<td>Authors</td>
<td>RePEc Rank (Single ranking of best)</td>
<td>Google Scholar</td>
<td>Web of Science</td>
<td>Citec</td>
<td>Citeasen</td>
<td>Main Causes</td>
<td>Keywords/Notes</td>
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<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>November 1998</td>
<td>Iain Goldfajn, Tamer Bagj</td>
<td>Top 0% Category No Ranking</td>
<td>1013</td>
<td>100</td>
<td>258</td>
<td>NA</td>
<td>Only contagion discussion. Affected states move closer together during crisis. After accounting for news and fundamentals contagion remains, implies self-fulfilling</td>
<td>Citc: Contagion is present, countries react similar to each other. Possible panic based, self-fulfilling crisis.</td>
</tr>
<tr>
<td>Causes of the East Asian Financial Crisis in South Korea</td>
<td>Date</td>
<td>Authors</td>
<td>RePEc Rank (Single ranking of best)</td>
<td>Google Scholar</td>
<td>Web of Science</td>
<td>CITEC</td>
<td>Citeseer</td>
<td>Main Causes</td>
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<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1. “Asia currency crisis and the International Monetary Fund, 10 years later: Overview”</td>
<td>June 2007</td>
<td>Takatsho Ito</td>
<td>200 (361.92)</td>
<td>89</td>
<td>35</td>
<td>19</td>
<td></td>
<td>6. Through contagion (self-fulfilling, panic) loans were being reversed and risks covered. Korean reserves were attacked, making it harder to hold currency. Fundamental troubles existed: inefficient trade deficits.</td>
</tr>
<tr>
<td>2. “Short-Term Capital Flows”</td>
<td>September 1999</td>
<td>Dani Rodrik, Andrés Velasco</td>
<td>92 (81.69)</td>
<td>901</td>
<td>3</td>
<td>412</td>
<td></td>
<td>76. Unclear causes but the inherent volatility of the financial system is clear and will persist in the future. Even if fundamentals are bad, short-term loans are dangerous regardless.</td>
</tr>
<tr>
<td>Causes of the East Asian Crisis in South Korea</td>
<td>Date</td>
<td>Authors</td>
<td>RePEc Rank (Single ranking of best)</td>
<td>Google Scholar</td>
<td>Web of Science</td>
<td>CitEc</td>
<td>Citeeseer</td>
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</table>
8.2. Appendix 3 - Abstract

ENGLISH:

This master thesis uses a meta-analysis and systemic literature review approach aided with several digital citation services to analyse the various interpretations of the 1997 East Asian financial crisis conducted by the academic community. A ranking is created in order to find the most probable causes according to the views of economists and scholars. This thesis has found that a combination of hasty financial liberalisation with incompatible macroeconomic policies were responsible for building up vulnerabilities throughout the in East-Asian economies. Although the vulnerabilities were present, the international market over-reacted through a self-fulfilling crisis and panic. A more specific analysis is repeated focusing only on the factors causing the crisis in South Korea and a ranking is created in the same manner. In the case of South Korea the causes have been similar to the general explanations in addition to focusing on the conglomerates known as *chaebols* and their growing inefficiencies and vulnerabilities.

DEUTSCH: