

## Council for Trade in Services

### ECONOMIC EFFECTS OF SERVICES LIBERALIZATION: OVERVIEW OF EMPIRICAL STUDIES

#### Background Note by the Secretariat

#### *Addendum*

At the request of the Council for Trade in Services, the Secretariat submitted in October 1997 a Background Note on the Economic Effects of Services Liberalization (S/C/W/26) which was discussed by the Council at its meetings on 26 November 1997 and 26 February 1998. The Note was intended to form part of the information exchange programme, outlined in the Report of the Council for Trade in Services to the General Council (S/C/3), which seeks to "contribute to the assessment of trade in services which would assist future negotiations in the services sector".

At the Council meetings in November 1997 and February 1998, several delegations expressed interest in further discussing growth, developmental and other economic effects of liberalization policies, and the Secretariat undertook to provide, as resources permit, further information on the content of empirical studies. Accordingly, this Note provides an overview of the main findings of all studies available to the Secretariat and published since January 1990, dealing with the economic effects of liberalization. As already noted in document S/C/W/26, the sectoral and policy focus does not reflect any a priori selection by the Secretariat, but is dictated entirely by the availability of publications.

The Note is in three parts. An introductory section (Section I) seeks to summarize salient points - main empirical findings, policy implications, etc. - discussed in the individual studies. Section II contains brief descriptions, in a standardized format, of the content of all publications made available to the Secretariat during this exercise. The majority of publications was provided by the Library of the Kiel Institute of World Economics, the central library for economic sciences in the Federal Republic of Germany. Section III provides an updated and extended version of the Bibliography initially contained in document S/C/W/26, taking into account new information received since.



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## I. INTRODUCTION

1. This Note contains short reviews of the content of recent studies of the economic effects of liberalization in services. The studies reviewed have all been published since January 1990. They comprise all of the publications the Secretariat has been able to obtain on this subject. The studies differ in many ways - for example in their sectoral and country coverage, analytical approach and time frame. This limits the possibility of tracing common themes or, more ambitiously, drawing general conclusions on the framing or sequencing of services liberalization policies. Nevertheless, there seems to be at least one overriding objective that has inspired virtually all reforms, regardless of the individual measures or sectors involved: giving market forces a freer reign in determining production, trade and/or investment patterns. In turn, this objective normally implied a move towards competitive prices, aligning them more closely with prevailing international levels, and additional emphasis being placed on positive adjustments via product and process innovation.

2. While the Secretariat's intention was to review all relevant studies, no matter what were the services areas they covered, it turned out that the great majority of the available studies dealt with financial sector reform. Other focal areas of research were deregulation and/or liberalization measures in the aviation and telecommunication industries. Research in these areas may have been stimulated by, and be indicative of, actual policy developments; few other services sectors have undergone comparably sweeping policy changes over the past decades. Nevertheless, it is unfortunate that the coverage of empirical studies is so limited. However, with the Uruguay Round results being implemented across a broad range of countries and sectors, there is an increasing number of cases which may inspire empirical research. Any future overview papers may thus be able to cast light on a wider range of services.

3. Financial services, telecommunications and air transport may be viewed as the infrastructural backbones of any modern-day economy. They tend to have a significant impact on growth and efficiency across a wide range of user industries and, by implication, on overall economic performance. However, it is precisely this impact which is very difficult to capture empirically. While declining airfares or telecommunication tariffs may be ascribed to competition-enhancing regulatory reform, it is next to impossible to identify the impact of lower priced and, possibly, more efficient services inputs on the user industries, i.e. virtually all economic activities in a liberalizing country. In a similar vein, interest rate deregulation is normally expected to help improve sectoral and inter-temporal resource allocation, with the ensuing stimulus for aggregate savings and investment being seen as a core link between financial sector deregulation and growth. However, how could this link be isolated in empirical studies, given that reform-oriented countries may have moved on a variety of fronts and that, to the chagrin of researchers, reforms are not implemented under laboratory conditions?

4. The immediate result of reform, traced in a number of studies, may be a fall in the incumbent firms' profitability. Declining profits at early stages of reform could be viewed as a natural corollary of a process ultimately leading to more efficient production and marketing systems. In response to interest rate liberalization, airfare deregulation and telecom demonopolization, companies in various countries have sought to enhance allocative, operational and dynamic efficiency. Where internal reform foundered, for example due to cost rigidities or managerial misjudgement, new entities have emerged from take-overs, mergers or new business set-ups. The post-deregulation rise in the number of failures, not least in the financial sector, may be ascribed to the elimination of inefficient firms as competition intensified.

5. Several studies on financial sector reform point to a persistent trend of declining bank profits which led to widespread insolvencies, culminating in severe financial crises. This phenomenon was often related to the banks being saddled with large shares of non-performing and other loans of dubious commercial value. Moreover, banks in certain countries appear to have responded to falling profits, due to lower interest margins, by expanding their loan portfolios with little regard to the

hazards involved. The rise in imprudent lending is possibly the most serious risk for deregulation policies that are pursued in the absence of adequate banking supervision and prudential control.

6. There are also cases where financial reforms suffered from continued expectations of the government providing protection through some form of "deposit insurance". In turn, such expectations led banks and depositors to assume risks which they might not have taken otherwise. (Some studies also argue that branching restrictions have affected the banks' ability to diversify risks, thus increasing the perceived need for deposit insurance in certain countries). There are cases where the rise in risky loans contributed to a widening of interest margins after deregulation, indicating - in defiance of a priori expectations - increasing costs of financial intermediation. In addition to macroeconomic instability, this may explain why not all studies were able to trace a clear positive relationship between financial deregulation, aggregate savings, investment and growth.<sup>1</sup>

7. Another key issue is the sequencing of internal deregulation and external opening. One study on telecommunication notes, for example, that the authorities in a liberalizing country focused on domestic rather than international traffic. They reportedly felt that, in the absence of similar market conditions abroad, external liberalization could undermine the incumbents' business position vis-à-vis foreign operators. Several studies on financial sector reform maintain that premature liberalization of capital flows, particularly during macroeconomic instability, may compound exchange volatility and engender capital flight.<sup>2</sup> By contrast, in reasonably stable economies with effective financial supervision, deregulation proceeded smoothly in general.

8. Available information in many studies suggests that financial service consumers benefited from a wider array of banking schemes and services, lower service fees and higher interest rates on deposits. While deregulation may have amplified rural/urban disparities - one study suggests that bank deregulation in the United States caused many locally-owned rural banks to disappear - it might be argued that there are other, possibly more transparent and economically efficient mechanisms to pursue regional policy goals.

9. While few studies focus exclusively on the effects of deregulation on consumer welfare, there is strong evidence in many sectors of post-deregulation price reductions, quality improvements and widening product variety. There are qualifications, however. Some studies on the U.S. aviation industry point to an increase in airfares, following some initial price reductions, as a result of rising business concentration. This observation has been explained in terms of economies of size (scale, scope and density) or, in other words, of the commercial advantages of big firms over smaller competitors. The latter may not be able to effectively use marketing instruments such as frequent flyer bonuses or computer reservation systems. These instruments, along with the dominance of hubs, may have undermined the "contestability" of markets and contributed to the business power of incumbent firms. (By contrast, other studies suggest that increased business concentration in the U.S. airline industry coincided with stiffening competition.)

10. However, rising airfares or, as argued in certain studies, declining service quality are not necessarily indicative of an anti-competitive outcome.<sup>3</sup> For example, a majority of passengers may prefer higher to lower prices if the former are coupled with attractive discounts - through bonus points - and the convenience of an efficient reservation system; they may not be too concerned about less frequent traffic links being offered to geographically remote regions. Moreover, as argued above,

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<sup>1</sup>There seems to be no unequivocal link between the volume of risky loans and interest margins. Harper and Scheit (1992) call attention to modern finance theory, which holds that only a rise in risk *relative* to the market would influence margins. A rise in *absolute* risk, affecting all enterprises in an economy, would be insignificant as it could be diversified through share prices.

<sup>2</sup>These issues have also been addressed in some depth by Kono, Masa et al. (1997), *Opening Markets in Financial Services and the Role of the GATS*, Geneva.

<sup>3</sup>The perceived losses in service quality normally consist of less convenient, less reliable, or less frequent connections being offered outside the main routes; the WTO Secretariat is not aware of studies suggesting that air safety has suffered.

adequate compensation schemes could help to cushion reform impacts on, and ease the resistance of, disadvantaged groups.

11. A post-deregulation increase in industry concentration does not necessarily imply economic inefficiencies. The emergence of larger conglomerates might be consistent with overall performance objectives as long as the funds invested by incumbents, e.g. in flight reservation or electronic banking systems, are recoverable. Potential competitors would then not be unduly deterred by high entry costs. In addition, a point could be made that countries are not necessarily confronted with a choice between two evils - either condoning consumer losses incurred by over-regulation or accepting monopolistic business practices - as pro-competitive policies ("competition policy") may help to ensure that the benefits of deregulation are effectively passed on. However, this may presuppose a learning process for both policy makers and regulators as traditional rules and practices may need to be adjusted to new economic challenges - given the size and scope of some of the emerging entities - and new technologies. Studies on financial deregulation also suggest that it might be necessary in some countries to strengthen the administration's position, for example through institutional safeguards, vis-à-vis large companies demanding support in difficult situations.





## II. REVIEW OF INDIVIDUAL PUBLICATIONS

### A. FINANCIAL SERVICES: BANKING

I.	Publication	Alawode, Abayomi A. (1992), "Financial Deregulation and the Effectiveness of Bank Supervision in Nigeria", <i>Savings and Development</i> , No. 1.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic Deregulation</i> in the Nigerian banking sector in 1986. - Entry barriers were relaxed. - Banks were allowed to hold stocks in non-financial companies, lease equipment, and buy and sell foreign exchange.
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	- The number of banks increased from 40 to 124 between 1986 and 1991.  - The number of non-bank financial intermediaries increased significantly. These institutions are not subject to any capital-adequacy standards and their accounts are not regularly audited. The author holds that deregulation might have increased the likelihood of dubious transactions between these and other financial institutions.  - Banks introduced money market instruments like Certificates of Deposit (CD) in order to mobilise funds. The author expects this to lead banks to maintain less liquid asset structures, thus risking difficulties in the event of unforeseen cash needs. Instruments like CDs link the portfolios of different banks by encouraging the transfer of funds from one bank to another; a default by one bank could influence the entire financial system.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The paper argues that deregulation may increase the level of risk assumed by individual institutions. It therefore emphasizes the need for adequate regulation in order to ensure the safety and soundness of the financial system. The author is also concerned about the scarcity of qualified personnel, given the large number of banks in Nigeria.

I.	Publication	Aliber, Robert Z. (1994), "Financial Reform in South Korea", <i>Korea's Political Economy</i> , Boulder.
II.	Sector	Financial Services: Banking
III.	Policy Change	Elimination of interest rate ceilings on bank deposits and bank loans in the Republic of Korea in the 1980s.
IV.	Rationale for Policy Reform	Institutional reform was aimed at developing a system of banks and financial institutions that would lead to more efficient and less costly credit allocation.
V.	Results	
(a)	Sector-specific	No comment
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The paper provides a normative analysis of policy reforms in Korea. While not assessing the results of previous reforms, it argues strongly for greater liberalization of financial services in Korea.

I.	Publication	Bank of Japan (1991), "Developments following the deregulation of retail deposits in major European countries and the United States", Special Paper No. 197, Tokyo. (Translation of an article in <i>Monthly Bulletin</i> of September 1990).
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Deregulation</i> of retail (small denomination) deposits in the United States, West Germany and the United Kingdom began in the early 1960s and was completed in the mid-1980s.
IV.	Rationale for Policy Reform	Deregulation aimed at achieving better conditions for depositors.
V.	Results	<p>- Interest rate competition in the United States and the United Kingdom intensified soon after deregulation. The focus of competition, however, soon shifted towards offering a wider variety of products and services. As financial institutions realised that interest-sensitive customers were not necessarily long-term clients, they sought to improve customer loyalty through better services and products.</p> <p>- In Germany, interest rate competition was subdued, and banks continued to offer deposit schemes similar to those offered before deregulation. The banks' response has been attributed to a well established public pensions system and long-term price stability in Germany, which might have reduced savers' sensitivity to changes in interest rates.</p> <p>- Financial institutions attempted to offset the reduction in profitability associated with lower margins on retail deposits by improving managerial and operational efficiency, diversifying products and services and promoting economies of scope.</p>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	A wider variety of payment services and a more diversified product combination benefited depositors in each of the three countries.
VI.	Additional Comments	The paper points out that the effect of interest rate deregulation on the profitability of financial institutions depends critically on the extent to which institutions actually seek to enhance their operational and managerial efficiency, achieve higher returns on portfolios and extend their business scope.

I.	Publication	Basch, Miguel H. (1995), "Chile: Improving Market Mechanisms", in M. Basch and C. Morales (eds.), <i>Expanding Access to Financial Services in Latin America</i> , Inter-American Development Bank, Washington D.C.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of the Chilean financial market in the early 1970s.</p> <ul style="list-style-type: none"> <li>- Interest rates were liberalized and credit restrictions removed.</li> <li>- Reserve requirements were lowered.</li> <li>- Only positive real interest rates were made subject to taxation.</li> </ul> <p><i>Regulatory Reforms, 1985-93:</i> The 1986 reform of the General Banking Law introduced new regulations in response to a financial crisis of the early 1980s.</p>
IV.	Rationale for Policy Reform	<p>Selective allocation of credit, before deregulation, led some favoured sectors to obtain official credit at negative real interest rates. This created distortions in resource allocation, reflected in a poor quality of projects and a contraction in financial resources. Domestic savings fell.</p> <p>Financial reforms were intended to increase savings and investment, and improve the sectoral allocation of investment.</p>
V. (a)	Results Sector-specific	<ul style="list-style-type: none"> <li>- Between 1975 and 1982: Real interest rates averaged 30%. Total bank credit rose from 5.6% of GDP to over 77%. M2, a measure of financial deepening, grew from 6% to 26% of GDP.</li> </ul> <p>Total investment as a percentage of GDP declined by 5 points relative to the 1960s. This reflected a decline in both public and private investment.</p> <ul style="list-style-type: none"> <li>- Despite high real interest rates, the share of gross national savings in GDP declined by four percentage points from 1975 to 1981.</li> <li>- 22 financial institutions, together accounting for 60% of private bank holdings, were liquidated or taken over by the government.</li> <li>- The author attributes the crisis to flawed macroeconomic policies and extreme bank vulnerability; excessive optimism about overall growth prospects and the existence of implicit deposit insurance encouraged risky lending.</li> <li>- In the aftermath of the crisis and as a result of regulatory reform, new and less strictly regulated financial services entered the market.</li> </ul>

	<p>- Between 1980 and 1992, the volume of money supply increased significantly.</p> <p>- Financial deepening, measured as the ratio of holdings and investments over GDP, declined from 1985-92. This is reflected in a decline in bank intermediation over this period.</p>
(b) Economy-wide	Chile's economic progress since 1989 provided businesses in all sectors with better access to the financial system. The formal banking system, however, was less responsive to the needs of smaller businesses.
(c) Consumer Welfare	No comment
VI. Additional Comments	The study explores the argument that higher real interest rates following deregulation promote aggregate growth as they may prompt producers to replace old technologies and raise their yield rate.

I.	Publication	Batten, Jonathan (1995), "Foreign banks and the Australian financial system a decade after deregulation", <i>Journal of Global Business</i> , No.10.
II.	Sector	Financial Services: Banking
III.	Policy Change	The Banking Act of 1959 granted foreign banks the right to conduct licensed banking operations. In December 1992, the Act was amended to enable foreign banks to engage in wholesale banking through local branch networks.
IV.	Rationale for Policy Reform	Financial deregulation was expected to improve competition and efficiency in previously segmented domestic markets and help to integrate domestic and international capital markets. Foreign banks were allowed entry to further enhance competition.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Although foreign banks were not very successful in terms of profitability, they gained a moderate market share for financial assets.</li> <li>- Domestically-owned banks increased their lending to firms of questionable credit rating for fear of losing market shares.</li> <li>- The oligopoly of banks existing before deregulation attempted to deter entry by forgoing short-term profits; they significantly increased their lending in the period 1984-86. However, while gaining a share of the increasing market for financial assets, they were unable to restore their original position. New entrants managed to develop long-term positions.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment

I.	Publication	Berthélemy, Jean-Claude (1997), "From financial repression to liberalization: the Senegalese experience", in K.L. Gupta (ed.), <i>Experiences with Financial Liberalization</i> , Kluwer Academic Publishers, Massachusetts.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of the financial sector between 1985 and 1995.</p> <ul style="list-style-type: none"> <li>- Interest rates were partially freed.</li> <li>- Prudential regulations were strengthened.</li> <li>- The banking sector was reorganised through bank closures and the formation of new entities.</li> </ul>
IV.	Rationale for Policy Reform	<p>Financial repression in Senegal lasted from 1960 to 1988.</p> <ul style="list-style-type: none"> <li>- A lack of competition with less than ten banks in operation, coupled with a low savings ratio in the period 1960-1973, impeded the development of the Senegalese financial sector.</li> <li>- Large amounts of non-performing loans had accumulated in bank accounts by 1985; nine public and private banks were almost insolvent.</li> </ul> <p>Deregulation aimed at strengthening competition and bank management along with the introduction of more efficient monetary policy tools.</p>
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Although the banking sector became healthier, it remained incapable of stimulating overall growth.</li> <li>- Banks preferred to pile up portfolio holdings rather than expand lending; given their excess liquidity, some banks even shied away from accepting deposits.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Most banks demand a minimum deposit level equivalent to US\$400 in order to open accounts for private clients. The vast majority of the population, therefore, has no access.
VI.	Additional Comments	<p>The author considers it premature to draw any definitive conclusions from Senegal's experience with financial deregulation at this stage.</p> <p>Apparently, deregulation has not yet significantly enhanced the efficiency of the financial sector. This has been attributed to a "hysteresis" effect, implying that the previous regime of financial repression continued to have negative effects long after its dissolution. The author raises the possibility that <i>initial</i> financial development in Senegal lay below the standard threshold level at which both aggregate as well as financial sector growth are likely to build up a positive link of mutual causation.</p>

I. Publication	Bianchi, Andrés (1994), "Liberalización, regulación y supervisión bancaria: notas sobre la experiencia chilena", in <i>Reformas y estructuración de los sistemas financieros en los países de América Latina</i> , México.
II. Sector	Financial Services: Banking
III. Policy Change	<p>Chile started a process of liberalization, deregulation and privatization of the banking sector in the 1970s. After some years of extraordinary growth, the banking sector collapsed in 1981. Between 1981 and 1983, many private banks were nationalized.</p> <p>Over the period 1982 to 1986, prudential regulation and supervision mechanisms were adopted: among other things, bank portfolios were controlled; banks were forced to insure liquid deposits and some time deposits; information on the sector was published by the supervisory authority.</p> <p>Between 1985 and 1986, banks were reprivatized.</p>
IV. Rationale for Policy Reform	By the early 1970s, Chile's banking sector was small and almost completely government-owned. Real interest rates turned negative as inflation rose. Lending regulations led to inefficiencies in the allocation of resources.
V. Results (a) Sector-specific	<p>The system introduced in the 1970s was one of "free banking", i.e., it relied on market-based allocation and adjustment and, in principle, was not protected by state guaranties. However, as some financial institutions experienced solvency crises, (1976, 1978 and 1981), the Government intervened to protect formal sector deposits. In 1976, informal entities were prohibited.</p> <p>This created the expectation that deposits were <i>de facto</i> guaranteed by the State and, coupled with a lack of prudential regulation and supervision of lending, paved the way for the financial crisis of the early 1980s.</p> <p>The main characteristics of the banking sector in the late 1970s were: extraordinary growth (the financial sector's share in GDP was 5.3% in 1974 and 10% in 1981), extremely high real interest rates, and massive foreign indebtedness (in 1981 the financial sector accounted for 80% of Chile's medium- and long-term foreign debt).</p> <p>With new prudential rules and supervision, and aided by a sound economic environment, the sector has recovered rapidly since 1986.</p>
(b) Economy-wide	No comment
(c) Consumer Welfare	No comment
VI. Additional Comments	Lack of prudential regulation is seen by the author as an important determinant of Chile's financial crisis of the early 1980s.



I.	Publication	Binhadi (1994), "Financial Deregulation and Bank Supervision: The Case of Indonesia", in S. Faruqi (ed.), <i>Financial Sector Reforms, Economic Growth, and Stability: Experiences in Selected Asian and Latin American Countries</i> , World Bank, Washington D.C.
II.	Sector	Financial Sector: Banking
III.	Policy Change	<ul style="list-style-type: none"> <li>- <i>Domestic deregulation along with liberalization</i> of the Indonesian banking sector in the late 1960s was followed by more ambitious monetary and financial reforms in the early 1980s.</li> <li>- <i>Regulatory Reform</i> in 1991: Bank Indonesia introduced prudential principles and improved bank supervision.</li> </ul>
IV.	Rationale for Policy Reform	Liberalization of the financial system was supposed to stimulate economic growth, promote savings through positive interest rates, and improve the quality of investment through market-based allocation.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- The Indonesian banking sector grew significantly in terms of number of banks and bank offices, diversity of financial services and business volume. Stiffening competition induced banks to enhance efficiency.</li> <li>- The volume of deposits increased rapidly.</li> <li>- The 1983 reforms in the monetary as well as financial sectors helped to generate alternative sources of funds. Non-oil exports benefitted from the removal of foreign exchange restrictions and the opening of foreign bank branch offices.</li> </ul>
(b)	Economy-wide	<p>Development of the financial sector and relaxation of monetary controls helped to underpin economic expansion in the 1980s. This was associated with an enormous increase in consumption and investment demand, implicit in the sharp increase in imports, a declining share of non-oil exports in total exports and increased inflation.</p> <ul style="list-style-type: none"> <li>- Inflationary pressures were met by a contractionary monetary policy which, in turn, resulted in higher interest rates and lower overall growth.</li> <li>- The volume of dubious loans increased.</li> </ul>
(c)	Consumer Welfare	- Deregulation provided customers with a diverse array of banking schemes and services.
VI.	Additional Comments	The paper argues strongly in favour of combining financial sector deregulation with prudential regulation and improved bank supervision. It also stresses the need to pursue financial deregulation in tandem with deregulation in other sectors of the economy.

I.	Publication	Bonitsis, Theologos H., and Rivera-Solis, Luis E. (1995), "External liberalization of banking and industrial concentration: the evidence from Spain", <i>The Journal of Applied Business Research</i> , Volume 11, No. 3.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>External liberalization</i> of the Spanish banking sector starting in March 1979.
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	The entry of foreign banks has not contributed to lowering domestic bank concentration in the long run. (Domestic bank concentration is defined as the ratio of total assets of domestically-owned banks to the total assets of all banks).
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	Given that domestic bank concentration has not declined significantly after liberalization, the authors argue that long-run competitiveness of the sector has not improved.

I.	Publication	Buch, Claudia M. (1996), <i>Creating Efficient Banking Systems: Theory and Evidence from Eastern Europe</i> , Tübingen.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the banking systems of Hungary, Czech Republic, Poland and Estonia in the late 1980s. Most state-owned banks were privatised; prudential regulations were strengthened. <i>External liberalization</i> in the early 1990s involved complete liberalization of the capital account.
IV.	Rationale for Policy Reform	Higher real interest rates following deregulation were expected to stimulate savings and investment, while the abolition of direct controls was anticipated to improve bank efficiency.
V.	Results	- The quality of financial intermediation improved as banks turned increasingly profit-oriented and risk-aware. Credit flows were directed more towards the private than the public sector, given improved confidence in investment returns.
(a)	Sector-specific	- Static and dynamic efficiency of the banking system remained inhibited by limited competition, poor information systems, and the existence of potentially non-performing loans. The complete removal of entry barriers for foreign banks and the privatisation of domestic banks were therefore delayed.
(b)	Economy-wide	- Overall savings and investment did not rise above pre-reform levels.
		- Increases in private sector savings did not outweigh a decline in public sector savings. The overall decline was higher in the Czech Republic and Estonia than in Poland and Hungary. It needs to be noted, however, that the countries had very high levels of savings under socialism.
		- Private household savings as a share of GDP rose significantly immediately after liberalization. Negative real deposit rates had previously discouraged savings. However, the author attributes this increase also to uncertainties about future income flows and the abolition of state social insurance schemes. However, the level of private savings could not be maintained throughout the transformation period.
		- Foreign currency holdings of households increased significantly in the Czech Republic and Hungary. Polish households already had sizeable foreign currency holdings before reform.
(c)	Consumer Welfare	Higher deposit interest rates promoted household savings.
VI.	Additional Comments	The impact of interest rate deregulation on aggregate savings was contrary to expectations. The author argues that the immediate impact of economic transformation on aggregate enterprise savings was negative because of the decline in profitability. Public sector savings declined due to revenue shortfalls as a result of tax reform and adjustment-related pressures on the social security system.

I.	Publication	Carneiro Dias, Dionísio et al. (1994), "El fortalecimiento del sector financiero en la economía brasileña", in Roberto Frenkel (ed.), <i>El fortalecimiento del sector financiero en el proceso de ajuste: liberalización y regulación</i> , Buenos Aires (Centro de Estudios de Estado y Sociedad).
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Financial reform in 1964/65:</i> Brazil adopted a financial system based on specialized institutions and the Central Bank started operating as the monetary authority.</p> <p>To avoid inflationary financing of public deficits, a market for government bonds was created. Indexation arrangements were applied first to government debt and gradually extended to the whole economy.</p> <p>Legislation allowed for universal banks in 1988. Entry criteria for new entities were made more flexible.</p> <p><i>Stabilization plans:</i> - Between 1986 and 1989, three Cruzado Plans were intended to eliminate short-term indexation arrangements.</p> <p>- Under the first Collor Plan, in 1990, indexed bonds were exchanged for traditional government bonds.</p> <p>In 1991, the second Collor Plan changed the rules governing indexation; indexed current accounts were prohibited.</p>
IV.	Rationale for Policy Reform	Reforms sought to explore non-inflationary ways of financing the fiscal deficit as well as stimulating private savings in an environment of entrenched inflation.
V. (a)	Results Sector-specific	<ul style="list-style-type: none"> <li>- Legislation provided for a highly specialized, segmented market structure; ensuing cost disadvantages were moderated through financial conglomerates offering different services based on the same infrastructure.</li> <li>- A large number of non-monetary credit institutions were created in the 1970s.</li> <li>- Between 1970 and 1986, inflation-induced profits, combined with the gains associated with the trading of government bonds, resulted in an important expansion of the financial sector.</li> <li>- Various institutions transformed themselves into universal banks which rapidly expanded their activities.</li> <li>- However, state-owned banks retained a dominant role for credits and deposits; the Central Bank reportedly had only limited control over them.</li> <li>- Concentration remained high both among private- and state-owned banks.</li> </ul>

	<p>- Average interest rates and spreads increased with inflation. Despite high and persistent inflation, long-term credit remained important, provided mainly by public financial institutions.</p> <p>- With galloping inflation and increasing uncertainty about the government's response, the system became more fragile. The terms of contracts were shortened and increasing risk premiums factored into interest rates.</p>
(b) Economy-wide	- Indexation arrangements facilitated business activities in an environment of high inflation. Currency substitution was avoided as the Central Bank, in association with the financial sector, provided indexed bonds. But the five stabilization plans pursued between 1986 and 1991 failed and left permanent expectations of massive public intervention.
(c) Consumer Welfare	No comment

I.	Publication	Cheng, Hang-sheng (1991), "A comparative assessment of financial reform in three Asian developing economies: Thailand, Indonesia and Taiwan", <i>Journal of Asian Economics</i> , No. 2.
II.	Sector	Financial Sector: Banking
III.	Policy Change	<i>Domestic deregulation of the banking system</i> in Thailand in the 1980s. <i>Domestic deregulation followed by external liberalization</i> in Indonesia and Chinese Taipei in the 1980s.
IV.	Results	<p><i>Indonesia:</i></p> <ul style="list-style-type: none"> <li>- Increased competition led to a narrowing of interest margins.</li> <li>- Entry of foreign banks in 1988 and a general lowering of barriers to entry led to strong increases in the number of banks and size of deposits.</li> <li>- Unlike Chinese Taipei's experience, the removal of controls on international capital flows prior to domestic financial liberalization did not (immediately) affect macroeconomic stability. This is attributed by the author to appropriate macroeconomic management.</li> </ul> <p><i>Thailand:</i></p> <ul style="list-style-type: none"> <li>- Increased competition helped to narrow interest margins. (Interest rates were not completely flexible under an oligopolistic banking structure).</li> <li>- The publication, issued only two years after the start of financial liberalization, was unable to determine the impact of reform on bank competition.</li> </ul> <p><i>Chinese Taipei:</i></p> <ul style="list-style-type: none"> <li>- Increased competition and narrowing of interest margins.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
V.	Additional Comments	While not providing a detailed analysis, the author discusses the need for and the benefits of sequencing financial liberalization.

I.	Publication	Chung, Choon Taik (1994), "Financial Sector Reforms and Liberalization in the Republic Of Korea: Current Status and Prospects", in S. Faruqi (Ed.), <i>Financial Sector Reforms, Economic Growth, and Stability: Experiences in Selected Asian and Latin American Countries</i> , The World Bank, Washington D.C.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Interest rate deregulation</i> in Korea's banking system in 1965: Nominal interest rates increased drastically. <i>Interest rate re-regulation</i> by the late 1960s. <i>Partial financial liberalization</i> in the 1970s: The market was divided into regulated and unregulated segments. <i>Domestic deregulation and liberalization</i> in the early 1980s: Domestic banking was opened to foreign entry.
IV.	Rationale for Policy Reform	- Low interest rates in the pre-deregulation period resulted in an excess demand for loans. An extraordinary increase in money supply and inflationary pressures ensued. - Low interest rates on deposits discouraged savings.
V.	Results	<i>1965:</i> - Higher interest rates stimulated domestic savings and promoted more efficient allocation of financial resources. International borrowing increased strongly.  - Negative interest margins seriously affected banks' profitability. In response, the government controlled interest rates.  <i>1970s:</i> - Regulatory segmentation caused unbalanced growth of financial institutions.  - Preferential lending led to a huge amount of non-performing loans, excessive and inefficient investment, and stifled the banking system.  <i>1980s:</i> - Reduced segmentation within the financial sector stimulated competition and helped to enhance efficiency.  - With the reduction of state-sponsored loans, the scale of bank operations expanded.  - Harmonisation of regulations helped to better integrate individual market segments.  - The business environment for foreign banks improved. The return on assets of foreign banks exceeded that of Korea's five major commercial banks by more than four times in 1991.
(a)	Sector-specific	
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The paper maintains that one of the main reasons for liberalising Korea's financial sector was the deterrent effects of low interest rates on savings.

I.	Publication	Clifton, Eric V. (1994), "Financial liberalization in Israel", <i>Paper on Policy Analysis and Assessment</i> , International Monetary Fund, Washington D.C.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation and external liberalization</i> based on Israel's 1985 Economic Stabilization Plan.</p> <ul style="list-style-type: none"> <li>- Ceilings on foreign exchange loans to Israeli residents were removed.</li> <li>- Maturity constraints on most loans and deposits were eliminated.</li> <li>- The Bank of Israel reduced its influence on the pricing of financial services.</li> <li>- Reserve requirements were brought down to levels deemed necessary for prudential reasons.</li> </ul>
IV.	Rationale for Policy Reform	Deregulation aimed at reducing government intervention in and segmentation of financial markets and stimulating competition.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- The share of "directed" bank credits, whose terms were decided by government, fell from 55% of total bank credit in 1987 to 13% in 1993.</li> <li>- The difference between the non-indexed domestic currency borrowing and lending rates fell from 34% in 1987 to 7% in 1993.</li> </ul>
(b)	Economy-wide	In reducing public sector deficits and government intervention, deregulation increased the efficacy and autonomy of monetary policy. The use of market-based financial instruments allowed the Bank of Israel to conduct monetary policy primarily through influencing the cost of credit rather than through administrative controls.
(c)	Consumer Welfare	No comment
VI.	Additional Comments	Further and more significant initiatives to deregulate the banking sector, remove restrictions on current account transactions, and reduce capital controls were still in progress at the time of publication.



I.	Publication	Curtis, Wayne C. (1990), "The effects of financial deregulation on consumer lending by foreign banks: 1982-89", <i>The Journal of Private Enterprise</i> , Vol. 6.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of the U.S. banking industry with the passage of the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) in 1980 and the Garn-St. Germain Act in 1982.</p> <ul style="list-style-type: none"> <li>- Portfolio restrictions and interest rate ceilings were removed.</li> <li>- Non-bank savings institutions were permitted a broader scope of activity, including commercial lending, checking account and trust operations, which were previously reserved for commercial banks.</li> <li>- Non-bank institutions, particularly savings and loan associations, were permitted to expand the share of consumer loans in their portfolios. The Act also enabled these institutions to offer demand deposits, such as checking accounts, to commercial, corporate and agricultural customers.</li> <li>- Restrictions maintained under interstate banking laws were eased.</li> </ul>
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Deregulation motivated financial institutions to develop new strategies to compete with new entrants.</li> <li>- Commercial banks increased market shares in consumer lending.</li> <li>- Consumer finance companies lost ground as consumers preferred to borrow from deposit institutions (commercial banks, savings institution or credit unions) with whom they already had checking accounts.</li> <li>- Neither savings institutions nor insurance companies could gain significant market shares relative to commercial banks.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment

I.	Publication	Diaz-Alejandro, Carlos (1985), "Good-Bye Financial Repression, Hello Financial Crash", <i>Journal of Development Economics</i> No. 19.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation and external liberalization</i> in Chile began in the 1970s. Banks were privatized. Reserve requirements were reduced to less than 10% of deposits by 1980. Supervision of bank portfolios was introduced in 1980. Restrictions on capital flows were relaxed in 1981.</p> <p><i>Re-regulation</i> from 1983.</p> <p>The Government took control over a significant share of the Chilean corporate sector, intervening in five banks, liquidating three and directly supervising the others.</p>
IV.	Rationale for Policy Reform	<p>- Development banks in inflation-ridden Latin American countries had segmented the domestic financial markets. Favoured groups obtained credits at negative real interest rates, while others relied on expensive and unstable informal markets.</p> <p>- Regulation of the banking system led to negative real interest rates for depositors, thus inhibiting the mobilisation of savings and encouraging capital flight.</p>
V. (a)	Results Sector-specific	<p>- The banking credentials of new entrants were not carefully investigated.</p> <p>- Relaxation of capital account restrictions resulted in massive capital inflows by 1981. External debt grew rapidly, mainly due to foreign borrowing by the private sector.</p> <p>- Non-performing assets of banks rose from 11% of capital and reserves at end-1980 to 113% in May 1983.</p> <p>- Negligence of the current account led to a huge deficit and forced devaluation. In turn, significant devaluation vis-à-vis the U.S. dollar in 1983 worsened the burden of dollar-denominated debt.</p> <p><i>Comparable developments in Argentina, Uruguay and Chile:</i></p> <p>- Despite the absence of explicit insurance, the public expected the government to protect depositors from losses in the event of a financial crash.</p> <p>- The Central Banks neglected prudential regulations over financial intermediaries, thus leading to an accumulation of risky assets in Argentinian and Chilean banks. In Uruguay, by contrast, the presence of U.S. banks, regulated indirectly by the Federal Reserve, helped to contain risk-taking</p> <p>- Linkages between financial intermediaries and non-financial firms led to the creation of oligopolies which were responsible for the increase in private-sector debt in Argentina and Chile. Owing to their control over banks, non-financial enterprises had access to both domestic and foreign credit. By late 1982, several Chilean banks had lent at least a quarter of their resources to affiliates.</p>

		<ul style="list-style-type: none"> <li>- The increase in private financial intermediation was limited to deposits and loans of less than six months' duration. Longer-term intermediation through banks, bonds or the stock market remained stagnant.</li> <li>- In the absence of regulation, false stock transactions contributed significantly to the growth of financial intermediaries during 1977-81. Large business groups reportedly manipulated the market prices of their shares, via spurious transactions, to increase the value of collateral used to secure loans.</li> </ul>
(b)	Economy-wide	<ul style="list-style-type: none"> <li>- Although financial savings increased significantly between 1977 and 1982, there was no corresponding increase in total domestic savings. In fact, Chile's gross national savings fell from an average of 16.3% of GNP in the 1960s to 12.4% during 1975-81. This reflected the fact that financial savings primarily drew upon capital inflows, accumulation of interest and capital gains, and a reorientation of saving flows from the public to the private sector.</li> <li>- Aggregate investment remained stagnant in Chile, Argentina and Uruguay. In Chile, this was due to the shrinking share of public sector capital formation.</li> <li>- Overvaluation of the Chilean peso induced an increase in the volume of imports and a reduction of local savings, thereby aggravating the 1982-83 depression.</li> <li>- Short-term interest rates remained very high despite massive capital inflows in the three countries. This was due inter alia to expectations of devaluation and inflation and a change in the real productivity of capital.</li> <li>- A decline in GDP in Argentina, Uruguay and Chile after 1980 was attributable to unfavourable external circumstances whose impact was compounded by flawed domestic macroeconomic policies.</li> </ul>
(c)	Consumer Welfare	No comment
VI.	Additional Comments	<p>The study discusses how the combination of fixed nominal exchange rates, relatively free capital movements and the lack of prudential regulations led to macroeconomic instability. Strong expansion of external debt was followed by a sudden cessation of capital inflows.</p> <p>The paper also draws attention to the impact of financial liberalization on the stock market and, thus, on long-term credit availability.</p>

I. Publication	Drake, Peter J. (1997), "Financial deregulation in Australia: a success story?", in K.L. Gupta (ed.), <i>Experiences with Financial Liberalization</i> , Kluwer Academic Publishers, Massachusetts.
II. Sector	Financial Services: Banking
III. Policy Change	<p><i>Domestic deregulation</i> of the Australian financial sector in the early 1980s.</p> <ul style="list-style-type: none"> <li>- Interest rate ceilings on fixed deposits were removed and interest rates on current account deposits introduced in December 1980.</li> </ul> <p><i>External liberalization</i></p> <ul style="list-style-type: none"> <li>- Foreign banks were granted licenses from 1985.</li> </ul>
IV. Rationale for Policy Reform	The Australian banking sector had long remained stagnant with a low ratio of financial assets to GDP. A major volume of funds was directed towards government borrowing, thus constraining the financing of industry and commerce. By the end of World War II, government debt was greater than the current value of GDP.
V. Results	
(a) Sector-specific	<ul style="list-style-type: none"> <li>- The anticipated entry of large international banks induced domestically-owned banks to merge in 1981. Four major Australian banks emerged.</li> <li>- Stiffer competition fostered product innovation and diversification in the banking sector. This involved, <i>inter alia</i>, the introduction of automatic teller machines, interest-bearing checking accounts and telephone banking.</li> <li>- Employment, income and career opportunities in the financial sector increased significantly.</li> </ul>
(b) Economy-wide	<ul style="list-style-type: none"> <li>- Improved financing of productive activities facilitated restructuring and encouraged investment.</li> <li>- Careful scrutiny of borrowers and investment proposals helped to contain large-scale misallocation of funds.</li> </ul>
(c) Consumer Welfare	<ul style="list-style-type: none"> <li>- Higher interest rates along with a wider variety of products made banking more convenient and lucrative for clients.</li> <li>- The removal of credit rationing improved access to bank credit for all types of borrowers and risks.</li> <li>- Farmers and rural populations were adversely affected by widespread closure of bank branches in country areas.</li> </ul>
VI. Additional Comments	The study demonstrates that deregulation yielded mainly positive results in Australia. The removal of anti-competitive controls was accompanied by the introduction of new prudential regulations.

I.	Publication	Ekinci, Nazim Kadri (1997), "Financial Liberalization under external debt constraints: the case of Turkey", in K.L. Gupta (ed.), <i>Experiences With Financial Liberalization</i> , Kluwer Academic Publishers, Massachusetts.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of the financial sector in Turkey in 1980. Interest rates on bank deposits were decontrolled.</p> <p>A <i>stabilization</i> package accompanied the liberalization agenda. It involved measures to reduce public sector deficits, limits on domestic credit creation, subsidy reductions, steep devaluation, and a lifting of price controls especially on public enterprises.</p> <p><i>Reregulation</i> of deposit interest rates in early 1983. A new Banking Law, introduced in 1985 as a result of financial crisis, established a new regulatory and institutional framework. A Bank Supervision Unit became operational at the Central Bank in 1986.</p> <p><i>Partial external financial liberalization</i> in late 1983. Controls over capital flows were removed, although only certain authorized banks and corporations were allowed to borrow on international markets. In August 1989, all restrictions on capital movements were lifted.</p> <p><i>Partial Deregulation</i> of deposit interest rates in 1987. All ceilings on interest rates were eventually removed in 1988.</p>
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	<p>- Interest rate liberalization and the ensuing rise in loan rates came at a time when industrial firms already suffered from demand contraction accompanying the stabilization measures. This caused an increase in nonperforming loans. Banks tended to ignore the vulnerability of the average borrower; the situation culminated in a banking crisis in mid-1982.</p> <p>- A new supervisory and regulatory framework in the financial sector apparently helped to prevent any further upheavals.</p> <p>- As a result of capital account liberalization, domestic financial institutions became the main agents handling Turkey's external borrowing.</p>
(b)	Economy-wide	<p>- Although the period of free interest-rate determination culminated in a crisis, main macroeconomic indicators, including GNP, continued to improve during the early 1980s.</p> <p>- After 1986, Turkey's external payment difficulties intensified. The economy witnessed high fiscal deficits, fluctuating growth rates, a stagnating share of exports in GNP, an increase in the core rate of inflation, and a deteriorating current account balance.</p>
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study illustrates the role of regulatory and supervisory policies in preventing financial crises. It also discusses the sequencing of internal versus external liberalization.

I.	Publication	Elyasiani, Elyas, and Mehdian, Syed (1995), "The comparative efficiency performance of small and large U.S. commercial banks in the pre-and post-deregulation eras", <i>Applied Economics</i> , Vol. 27.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the U.S. banking sector in the early 1980s.
IV.	Rationale for Policy Reform	No comment
V.	Results	- While efficiency indicators declined for both large and small banks, the decline was more significant for small banks. The author attributes this to different adjustment capabilities in response to changes in the banking system.
(a)	Sector-specific	- Given that small banks had traditionally been more efficient than their larger counterparts, deregulation thus contributed to equalizing performance across groups.
		- However, there was significant dispersion among small banks. While the profitability of the average small bank fell in the 1980s, 2% of the banks within this category were able to maintain high returns.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The author maintains that a deregulated banking environment may take longer than expected to eliminate weak and inefficient banks if these are regionally isolated from competition or operate in niche markets.

I.	Publication	Englund, Peter; Hendershott, Patrick H.; and Turner, Bengt (1996), "Loan-to-value ratios in Sweden: the impact of financial deregulation", <i>Scandinavian Housing and Planning Research</i> , No. 3.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of Sweden's credit market in the early 1980s:</p> <ul style="list-style-type: none"> <li>- Mortgage institutions were allowed to issue bonds for refinancing of old dwellings in 1983.</li> <li>- The ceiling lending rate on mortgage loans was removed.</li> <li>- Loan ceilings on banks were abolished in November 1985, followed by the elimination of portfolio regulations on insurance companies in December 1986.</li> </ul>
IV.	Rationale for Policy Reform	Regulations in the pre-reform era had been rendered ineffective by various loopholes.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- The removal of lending restrictions prompted a significant increase in total lending from banks and other credit institutions. The stock of household debt grew from 54% of GDP in 1985 to 68% in 1988.</li> <li>- Deregulation had three major impacts on housing finance: Mortgage institutions entered the market for second mortgages to finance existing houses. Restrictions on bank lending to households for purposes other than real estate acquisition were removed. The elimination of restrictions that had required banks to invest in bonds, helped to increase the supply of loans to the household sector.</li> <li>- Enhanced competition among banks and mortgage institutions increased the supply of higher-risk mortgages. Loan-to-value ratios grew significantly through the period 1981-1987 as banks focused on maximising lending volumes and increasing short-term rather than long-term sustainable profits.</li> <li>- A sharp increase in house prices after 1985, which depressed demand for loans, resulted in a sharp decline in loan-to-value ratios in 1988-89.</li> <li>- Sweden's credit markets suffered a severe crisis in 1991 as a result of losses on commercial real estate lending.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment

I. Publication	Eyzaguirre, Nicolas G. (1993), "Financial Crisis, Reform and Stabilization: The Chilean Experience", in S. Faruqi (ed.), <i>Financial Sector Reforms in Asian and Latin American Countries</i> , The World Bank, Washington D.C.
II. Sector	Financial Services: Banking
III. Policy Change	<p>- <i>Domestic deregulation</i> in the early 1970s followed by external liberalization in 1980 involved strong tariff reductions for goods and the elimination of restrictions on capital flows.</p> <p>- <i>Regulatory reform</i> after the financial crisis of the early 1980s. The state intervened and took control of almost 64% of the capital and reserves of the private financial sector. A new banking law established strong supervision and strengthened regulations of banking activities.</p>
IV. Rationale for Policy Reform	<p>- Deregulation was expected to allow real interest rates turn positive which, in turn, would promote savings, investment and economic growth.</p> <p>- Market-based interest rates and a removal of controls on credit allocation would allow for more efficient resource allocation.</p>
V. Results (a) Sector-specific	<p>- GDP growth accelerated significantly between 1977 and 1980. The financial system, however, developed certain imbalances during this period.</p> <p>- Real annual interest rates averaged 30% between 1976 and 1980, which clearly exceeded capital yields in most sectors.</p> <p>- The author maintains that a fall in the real exchange rate and tariff reductions led to a strong profit decline in the tradable goods sectors. Producers, however, continued to perceive the situation as temporary. Consequently, debt grew at higher rates than capital yields.</p> <p>- A speculative increase in real estate prices led to a substantial extension of banking loans towards that sector.</p> <p>- Consumers, expecting higher levels of wealth to follow from high rates of growth, borrowed heavily.</p> <p>- Banks also expected consumer wealth to increase. Besides, they assumed that the government would ultimately cover their liabilities. The state, on the other hand, expected the market to cope with higher risks.</p>



(b)	Economy-wide	<p>- In the short-run, capital inflows led to exchange rate appreciation. Increased liquidity in the economy translated into declining interest rates and increased aggregate spending. This led to accelerating inflation and, in turn, a decline in the real exchange rate.</p> <p>- Deteriorating terms of trade and interruptions in capital inflows in 1982 caused a severe recession.</p>
(c)	Consumer Welfare	No Comment
VI.	Additional Comments	<p>The paper discusses the pace and sequencing of international capital liberalization. The author maintains that massive capital inflows as a result of hasty liberalization would drive up the real exchange rate. The consequent increase in current account deficits would create expectations of nominal currency devaluation. This would reverse the flow of capital and cause recession with inflation.</p> <p>Monetary authorities could avoid this situation if they purchased foreign currency in large amounts to delink the real exchange rate from the influence of capital inflows.</p> <p>The author maintains that the impact of bulk currency inflows on the real exchange rate is particularly significant for a small country like Chile, owing to low price elasticity of export demand.</p> <p>One of the fundamental causes of the financial crisis was inadequate financial supervision, which allowed for high internal and external indebtedness.</p>

I.	Publication	Fukuchi, Takao (1995), "Liberalization effect in financially repressed economy: the case of Indonesia, 1982-90", <i>The Developing Economies</i> , No. 3.
II.	Sector	Financial Sector: Banking
III.	Policy Change	<i>Financial liberalization</i> of the Indonesian banking sector in the early 1980s. Elimination of interest rate ceilings, reduction of barriers to entry and branching, and reduction of minimum reserve requirements. As a result of liberalization, the average interest rate and the rate for public firms increased steadily, while the rate for private firms decreased in the short run.
IV.	Rationale for Policy Reform	Financial repression had led to an underdeveloped capital market, favouring public over private investment.
V.	Results	<p>- Public and total investment declined in the short term, but recovered later. Private investment increased steadily over time. Total investment increased by 58.25% over the period 1982 to 1990.</p> <p>- While the surplus of public firms decreased immediately after liberalization, it began to rise in the medium term, registering an increase of 59.17% over the period 1982 to 1990. The surplus of private firms increased steadily.</p> <p>- Private saving increased by 3.3 times in 1986-90. The share in gross domestic investment increased from 62% to 84% over the same period.</p>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	The difference between deposit and lending rates fell from over 5 percentage points in 1983 to 3 points in 1990. Number and volume of deposits increased significantly.
VI.	Additional Comments	<p>The author emphasises the need for promoting public investment through interest rate subsidies, given its importance for economic take-off. However, he also specifies that the dynamic positive spill-over effects arising from public investment promotion must outweigh the possible inefficiencies associated with public sector management and control.</p> <p>Moreover, the paper suggests that, given the need for protecting depositors and ensuring competent management, liberalization should form part of a larger package of financial reform.</p>

I.	Publication	Girg, Joachim (1996), <i>Australiens Bankwesen im Wandel - Einflüsse der Deregulierungspolitik auf Struktur und Standorte</i> , Frankfurt am Main.
II.	Sector	Financial services: Banking
III.	Policy Change	<i>Gradual deregulation and liberalization</i> of the Australian banking sector since the early 1980s, culminating in the implementation of the 1991 Martin Report ("A Pocket Full of Change - Banking and Deregulation"). The Report called, <i>inter alia</i> , for improved regulatory surveillance and increased foreign competition to enhance the efficiency of the domestic banking sector and contain the risks associated with over-generous lending.
IV.	Rationale for Policy Reform	The study focuses on the external opening of the Australian banking sector, including the granting of trading licences to 16 foreign banks in 1985, and its strategic business implications for German banks.
V.	Results	Of the five German banks previously established in Australia only two contemplated setting up branch offices and, thus, intensifying their commercial presence in the wake of the Martin Report. The study suggests that the banks' investment decisions in Australia continue to be made in a wider regional context, taking into account their commercial presence in Hong Kong, Singapore and Tokyo.
(a)	Sector-specific	
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study discusses the impact of deregulation and liberalization policies from the perspective of already established foreign banks. Given the small number of banks concerned and the particular conditions of the Australian market, the results may not lend themselves for general policy conclusions.

I.	Publication	González Méndez, Héctor E. (1993), "Desregulación financiera en México", <i>Monetaria</i> , No. 2 (Centro de Estudios Monetarios Latinoamericanos).
II.	Sector	Financial Services: Banking
III.	Policy Change	<p>- Between 1974 and 1981, Mexico modernized its financial sector: interest rates were made more flexible, mergers facilitated and reserve requirements eased. Universal banks were allowed.</p> <p>- In 1982, the private banking sector was nationalized.</p> <p>- In 1988, the financial liberalization process was reinitiated, interest rates were deregulated and foreign investment in the banking sector was allowed (subject to certain foreign ownership limitations).</p> <p>- In 1990, the State banking monopoly was abolished in law; prudential regulation and supervision were strengthened. Between 1991 and 1992, 18 banks which had been nationalized in 1982 were privatized.</p>
IV.	Rationale for Policy Reform	Strict regulation was seen to have contributed to the inefficiencies that characterized the Mexican financial sector in the 1980s. Financial rationing had resulted in the growth of an informal financial sector which increasingly threatened economic stability.
V.	Results	<p>- During the 1970s, a gradual process of concentration took place. Business efficiency benefited from the emergence of universal banks.</p> <p>- The 1982 nationalization of the banking sector resulted in increased concentration and further efficiency gains. On the other hand, the share of the banking sector in total funds raised by the financial system declined from 96% in 1980 to 72% in 1987, reflecting a loss of momentum vis-à-vis other financial institutions.</p> <p>- In 1987, in an effort to control inflation, bank loans were restricted. Investment needs of the enterprise sector were partly met by a growing stock market and the informal financial sector.</p> <p>- Despite the banks' declining market share, they did not adjust their infrastructure and employment. Competitiveness continued to suffer.</p> <p>- In 1989, the banking sector underwent a quick recovery; interest spreads fell.</p>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
VI.	Additional Comments	As NAFTA had not been signed at the time of the article, the author discusses only briefly its potential effects.

I.	Publication	Grabowski, Richard L.; Rangan, N.; and Rezvanian, Rasoul (1994), "The effect of deregulation on the efficiency of U.S. banking firms", <i>Journal of Economics and Business</i> , No.1.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the U.S. banking industry with the passage of the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) in 1980 and the Garn-St. Germain Act in 1982 (see above).
IV.	Rationale for Policy Reform	Deregulation was expected to drive prices down to competitive levels, remove excess profits and eliminate inefficient firms.
V.	Results	<ul style="list-style-type: none"> <li>- Overall efficiency as well as indicators of technical and scale efficiency for banks declined over the period from 1979 to 1987, while allocative efficiency remained unchanged.</li> <li>- During the period 1979-87, technical innovation was not significant for most banking firms, with the exception of those in the US\$200-400 million deposit size range.</li> <li>- The author maintains that the efficiency impact of deregulation in the banking sector is attributable more to the liquidation of inefficient firms than to improved efficiency of existing banks. Deregulation significantly altered the composition of the banking industry.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
VI.	Additional Comments	<p>Average measures of efficiency for the banking sector as a whole indicate that efficiency and technology did not improve significantly. The author notes, however, that this result may mask wide variations in individual performance.</p> <p>Recession in the early 1980s might have offset certain effects of deregulation. The study does not seek to isolate the impact of such factors.</p>

I.	Publication	Gruben, William C., and McComb, Robert (1997), "Liberalization, Privatisation and Crash: Mexico's Banking System in the 1990's", <i>Economic Review</i> , No. 1 (Federal Reserve Bank of Dallas).
II.	Sector	Financial Services: Banking
III.	Policy Change	<p>Mexican banks were nationalized in 1982 in response to a financial crisis that had led to a weakening of the peso, capital flight and an accumulation of government debt.</p> <p><i>Domestic deregulation</i> of the financial system in the late 1980s.</p> <ul style="list-style-type: none"> <li>- Interest rate ceilings on bank loans and deposits were removed.</li> <li>- Loan quotas for priority sectors were eliminated.</li> <li>- Reserve requirements were phased out.</li> <li>- The Financial Groups Law of 1990 allowed for the operation of universal banks.</li> <li>- 18 state-owned banks were privatised between June 1991 and July 1992.</li> </ul> <p><i>External liberalization</i> in 1994 allowed for the entry of foreign-owned banks.</p>
IV.	Rationale for Policy Reform	No comment
V. (a)	Results Sector-specific	<ul style="list-style-type: none"> <li>- By the early 1990s modern securities market enabled the government, to no longer rely on commercial banks for funding.</li> <li>- The number of banks increased significantly after privatisation in 1991-1992, resulting in a deepening of financial markets. Competition intensified.</li> <li>- Although financial penetration increased significantly in the late 1980s and the early 1990s, by 1992, it was still as low as 46%, compared with 97% in Canada, 93% in the United States, and 71% in Italy. (Financial penetration is a measure of the degree to which savings are channelled through the financial system to provide financing for investment).</li> <li>- Banks were successful in attracting deposits and generating profits by 1991. However, there was a persistent degree of inefficiency, as measured by the ratio of non-interest expense to total assets.</li> <li>- High levels of business concentration and wide spreads between banks' cost of funds and their interest rate on loans continued to cushion large incumbent institutions from the spur of competition.</li> <li>- Newly liberalized banks frequently lacked the ability to evaluate the loan and interest rate risks. Competing for market share, their lending increased to a point where marginal cost exceeded marginal revenue.</li> </ul>

	- The supervisory and regulatory framework was inadequate to prevent banks from acquiring increasingly risky loan portfolios.
(b) Economy-wide	<p>- Although Mexico's banking crisis of 1994-95 stemmed primarily from the changes in the banking system, it was triggered by significant currency devaluation in 1994.</p> <p>- Devaluation, in turn, was prompted by an increasingly negative current account balance. Mexico's high real interest rates, relative to those in the U.S., had led to large inflows of foreign capital.</p> <p>- The 1994 devaluation was accompanied by huge capital outflows and high inflation. A subsequent rise in interest rates had serious implications for the debt that had been accumulated in the two years preceding devaluation. Interest rates rose to such an extent that banks suspended all mortgage, auto and consumer lending.</p>
	- While the 1994 devaluation exacerbated Mexico's financial sector problems, it improved the profitability of a large number of its manufacturing industries.
(c) Consumer Welfare	No comment
VI. Additional Comments	The paper discusses problems for macroeconomic management and financial sector supervision in the aftermath of financial liberalization. In Mexico's case, lack of prudential regulation appears to have increased the banking sector's vulnerability, although the crisis was precipitated by macroeconomic instability.

I.	Publication	Gutiérrez, Francisco de Paula (1990), "Costa Rica: intermediación financiera y asignación de recursos"; in Carlos Massad and Günter Held (eds.), <i>Sistema financiero y asignación de recursos</i> , Buenos Aires.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p>Credit policy in Costa Rica was traditionally determined by the Central Bank, including total amount of credit, sectoral distribution and nominal interest rates.</p> <p>In 1986/87, this policy was abandoned; interest rates were gradually deregulated and measures taken to improve the commercial orientation of State-owned banks. Prudential regulation was strengthened. However, the State's monopoly on deposits of less than 180 days was maintained.</p> <p>In 1988, the reforms were partly reversed: the Central Bank designed a Programme of Credits, limiting global expansion and assigning sectoral credit ceilings.</p>
IV.	Rationale for Policy Reform	After a severe crisis in 1981/82, low domestic savings were seen as an important constraint on economic growth.
(a)	Results Sector-specific	<p>- Although still a minor player, the private banking sector showed strong momentum between 1987 and 1988. In 1988, it accounted for 20% of total loans and 28% of time deposits in domestic currency.</p> <p>- Sectoral growth was coupled with a large increase in the number of banks; the cost of financial intermediation was unusually high by the end of the 1980s.</p> <p>- Stock exchange operations became increasingly important.</p>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment



I.	Publication	Gutiérrez Pérez, A. and Perrotini, Ignacio (1994), "Liberalización financiera y estabilización macroeconómica en México: desafíos y perspectivas", <i>Investigación Económica</i> , No. 209.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p>- In 1982, private banks were nationalized in the wake of a severe economic crisis.</p> <p>- In the late 1980s, a process of deregulation was reinitiated; reserve requirements were reduced and private minority ownership of banks was allowed. In the early 1990s, foreign investment restrictions were relaxed, banks were privatized and interest rates deregulated.</p>
IV.	Rationale for Policy Reform	During the 1980s, the banking sector focused strongly on financing public sector debt; it sought to avoid massive bankruptcies. There was little business momentum and domestic saving remained low.
V.	Results	<p>- Following nationalization, with high inflation and interest rates regulated, deposits fell from 19% of GDP in 1982 to 17% in 1985.</p> <p>- After 1985, the non-banking financial sector developed rapidly, especially the stock market.</p> <p>- After further liberalization moves in 1992, loan portfolios increased as a percentage of total assets; interest rates came down, but remained relatively high given falling inflation expectations.</p> <p>The authors suggest that liberalization actually reinforced oligopolistic market structures, with new banks operating in sheltered niches. While NAFTA is expected to strengthen competition among financial institutions; structural asymmetries in the banking sectors of the participating countries might benefit in particular U.S. and Canadian banks.</p>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
		No comment
		No comment

I.	Publication	Harper, Ian R., and Scheit, T. (1992), "The effects of financial market deregulation on bank risk and profitability", <i>Australian Economic Papers</i> , No. 59.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation of the Australian banking sector</i> in the early 1980s.
IV.	Rationale for Policy Reform	Deregulation was intended to intensify competition, cause banks to allocate their resources more efficiently and reduce costs.
V.	Results	Based on modern finance theory, the paper assumes that only a rise in risk relative to the market is of economic significance to investors since it is undiversifiable. An increase in absolute risk, which pertains to all enterprises, could be diversified through the share market.
(a)	Sector-specific	<p>- Financial deregulation did not affect the undiversifiable risk of the three major private banks and of the banking industry as a whole. This might reflect the protection against adverse circumstances which banks receive from the Reserve Bank.</p> <p>- Since the rise in risk was diversifiable, investors were not harmed.</p>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	<p>The paper seeks to gauge the <i>economic</i> significance of increased bank risk following deregulation and identify problem cases. It does not assess other economic effects of financial sector deregulation.</p> <p>While Milbourne and Cumberworth (1991, see below) analysed the reasons behind a post-deregulation widening of interest margins, which they attributed <i>inter alia</i> to a rise in risky assets of banks, Harper and Scheit took this analysis further to specify when the rise in riskiness is really significant.</p> <p>An interesting inference flowing from the two papers is that, since the rise in risky assets was <i>absolute</i>, it caused a widening of interest margins.</p> <p>The plausibility of the authors' argument is subject to the validity of the economic model employed as an explanation of share prices.</p>

I.	Publication	Hawtrey, Kim; Favotto, Ivo; and Gilchrist, David (1991), The impact of bank deregulation on Australian manufacturers, North Ryde, NSW (Research Paper, Macquarie University, School of Economic and Financial Studies).
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the Australian banking sector in the 1980s.
IV.	Rationale for Policy Reform	Deregulation aimed at increasing competition in the oligopolistic banking industry through licensed new entry. Policy reform also intended to reduce the competitive disadvantages of banks <i>vis-à-vis</i> non-bank financial intermediaries.
V.	Results	<p>- New banks were unable to compete effectively in the retail market where customers were primarily small to medium sized manufacturing businesses. Almost every new bank concentrated on the large business sector. Thus, only the large corporate customers actually benefitted from deregulation.</p> <p>- The availability of finance improved on the whole as a result of price-based allocation rather than quantitative rationing of credit. However, large corporate enterprises had easier access to funds than the smaller companies.</p>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	- The increase in competition owing to the entry of foreign-owned banks resulted in lower interest margins and charges, better service and a wider choice of products.
VI.	Additional Comments	The paper stresses that as long as substantial barriers to entry persist (as for banks in Australia's manufacturing retail market), deregulation may benefit only certain market segments.

I.	Publication	Held, Günter (1990), "Regulación y supervisión de la banca en la experiencia de liberalización financiera en Chile (1974-1988)", in Carlos Massad and Günter Held (eds.), <i>Sistema financiero y asignación de recursos</i> , Buenos Aires.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p>The financial system in Chile was liberalized in the 1970s: Restrictions on the establishment of foreign-owned banks were abolished; State banks were privatized; interest rates were deregulated.</p> <ul style="list-style-type: none"> <li>- Significant reductions in reserve requirements increased available funds.</li> <li>- Successive increases in minimum capital requirements were intended to improve solvency.</li> </ul> <p>Between 1981 and 1986, prudential rules were introduced. State guarantees for deposits were substantially reduced.</p>
IV.	Rationale for Policy Reform	In an inflationary environment, interest rate regulation had resulted in negative real deposit rates and, frequently, negative loan rates. In turn, this discouraged depositors and affected the availability of commercial banking. Credit allocation was characterized by inefficiencies and distortions.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Between 1974 and 1981, the number of banks more than doubled, mostly owing to the entry of foreign-owned institutions.</li> <li>- Universal banks accounted for 90% of financial sector assets in 1981. However, the number of non-bank financial entities increased rapidly.</li> <li>- Between 1977 and 1980, the volume of loans grew five times as fast as GDP although average real interest rates were two to three times higher than GDP growth (1978-1980).</li> <li>- In 1981, the system underwent a severe solvency crisis. After liquidations and mergers, the number of banks was reduced to two-thirds, and that of other financial institutions to one-third.</li> <li>- Average real interest rates fell; spreads (as a percentage of assets) declined from almost 7% between 1978/89 to 3% between 1986/88.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The author stresses the need for adequate prudential regulation. He feels that the banking crisis was aggravated by regulatory deficiencies within the financial system.

I.	Publication	Humphrey, David B., and Pulley, Lawrence B. (1997), "Banks' Responses to Deregulation: Profits, Technology and Efficiency", <i>Journal of Money, Credit and Banking</i> , No. 1.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> in the U.S. banking system in the early 1980s
IV.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Increase in bank funding costs and decline in profitability.</li> <li>- Banks responded to high interest costs mainly through:               <ul style="list-style-type: none"> <li>(a) Cost-offset and reduction measures, focusing on fees for deposit services and operating costs;</li> <li>(b) cost shifting by transferring some costs and risks to borrowers via floating rate loans; and</li> <li>(c) revenue expansion and increased provision for high-risk debts.</li> </ul> </li> <li>- These responses were successful in limiting profit reductions. Due to unexpected large loan losses, however, bank rates of return did not regain their pre-deregulation level until 1992.</li> <li>- As part of cost-reduction, banks sought to replace labour with new equipment such as automatic teller machines. The number of full-time equivalent workers per branch fell by 13% after deregulation even though the value of core deposits per office remained unchanged.</li> <li>- Large banks relied primarily on changing deposit and loan rates and on organisational reform to mitigate and reverse the profitability effects of deregulation. These measures eventually helped to stabilise their profits between 1981 and 1984. From 1985, however, it was an improved business environment that buoyed profits.</li> <li>- Smaller banks, unable to change output prices and input use, relied mainly on the improvement in economic conditions.</li> </ul>
(b)	Consumer Welfare	Consumers benefited from rising average interest rates on core deposits, which increased by 52% from the pre-deregulation period, the removal of interest rate ceilings on deposits, and the introduction of interest-earning checking accounts.
(c)	Economy-wide	No comment
V.	Additional Comments	<p>The paper is wider in focus than some other studies on deregulation. In particular, the authors:</p> <ul style="list-style-type: none"> <li>- discuss how banks respond to a deregulation-induced decline in profits in distinguishing between bank-initiated adjustments and external changes in business environment; and</li> <li>- seek to capture the impact of adjustment strategies on core market parameters, recognising that large banks have some control over credit and loan conditions.</li> </ul>

I.	Publication	Humphrey, David B. (1991), "Productivity in banking and effects from deregulation", <i>Economic Review</i> , No.2. (Federal Reserve Bank of Richmond)
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic Deregulation</i> in the U.S. banking system in the early 1980s. - Ceilings on interest rates (time and savings deposits) were removed. - New interest-bearing consumer checking accounts were introduced.
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	- Productivity growth in the banking industry decreased significantly after deregulation.  - After the strong rise in interest rates in the late 1970s, corporate clients significantly reduced idle demand deposits. Banks thus shifted to higher-cost purchased funds which raised the real average cost per dollar of bank assets. Total factor productivity (the inverse of real average cost) fell.  - The rise in costs associated with core deposit interest rates was not offset by reduced costs elsewhere or with an expansion in bank output. Concerns about market shares prevented banks from reducing operating costs.  - The profitability of the banks' deposit base fell from US\$61 billion (in constant 1988 dollars) to US\$4 billion in 1988.
(b)	Economy-wide	Inflation in the late 1970s and early 1980s further contributed to the rise in bank costs.
(c)	Consumer Welfare	Users of banking services benefited from an increase in the quality of output.
VI.	Additional Comments	The study notes that low bank productivity after the 1980s did not deprive consumers of the benefits of deregulation. The quality of output, in terms of branch convenience and provision of underpriced deposit services, improved significantly after deregulation. The author feels that such effects are often ignored as they are not captured by conventional output indicators.

I.	Publication	Ishikagi, Kenichi (1993), "Effects of financial deregulation on Australian financial system", <i>Kobe Economic and Business Review</i> , Vol. 38.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of the Australian financial system in the early 1980s.</p> <ul style="list-style-type: none"> <li>- Interest rate ceilings on bank deposits (except checking accounts) were abolished.</li> <li>- The foreign exchange market was liberalized in October 1983, with the government's decision to float the Australian dollar and relax existing exchange controls.</li> <li>- As a result of deregulation, interest rates on government securities began to be determined by the market.</li> </ul>
IV.	Rationale for Policy Reform	Regulation had restricted competition and decreased the efficiency of financial resource allocation.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- New domestic and foreign entry, along with other deregulation-related changes, provided for a competitive market environment.</li> <li>- Mergers increased concentration not only in commercial banking, but also in other segments such as building societies and credit unions.</li> <li>- Foreign banks, especially in the wholesale banking sector, expanded their market share significantly over the period 1986 to 1990.</li> <li>- Financial deregulation and more flexible exchange rate arrangements helped domestically-owned banks to expand their overseas operations. In some cases, the entry of foreign-owned banks in the Australian market enabled domestically-owned banks, via reciprocity provisions, to expand abroad.</li> <li>- Stiff competition between financial intermediaries increased the efficiency of the sector, promoted product innovation, and helped to reduce bank charges as well as interest margins.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment

I.	Publication	Ismail, Abdul G., and Smith, Peter (1994), "Financial Deregulation in Malaysian Banking", <i>Savings and Development</i> , No. 4.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic Deregulation</i> in the Malaysian banking sector began as a gradual process at the end of the 1970s and accelerated in the mid-1980s.</p> <p>Interest rate regulations were gradually removed; banks were allowed to set their own base lending rates after 1990.</p> <p>Two main categories of regulations remained effective:</p> <ul style="list-style-type: none"> <li>- <i>Power regulations</i> limited foreign bank activities in the domestic retail market. However, foreign banks were well represented in the wholesale market.</li> <li>- <i>Quantity regulations</i>, particularly minimum liquidity and reserve requirements, were intended to ensure the viability of individual commercial banks.</li> </ul>
IV.	Rationale for Policy Reform	Greater reliance on market forces and prices was expected to improve resource allocation, promote competition and accelerate growth.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Liberalization of interest rates in 1978 increased competition within the previously oligopolistic financial sector. Three different types of banks (leader, follower and Islamic banks) emerged.</li> <li>- The government encouraged mergers. Larger bank size was expected to promote efficiency and expertise.</li> <li>- Bank instability increased due to a rise in risky loans, economic recession in 1985-86, and inefficient management practices.</li> <li>- The Central Bank encouraged management restructuring and provided loans or equity to reduce the risk of failure.</li> <li>- Banks were confronted with liquidity constraints. Greater competition, however, resulted in improved risk and liquidity management. Highly liquid assets, such as discounted instruments and inter-bank funds, became available as alternatives to bank deposits.</li> </ul>
(b)	Economy-wide	Greater reliance on market forces increased the responsiveness of interest rates to changes in monetary policy. Interest rates became better indicators of future economic activity and inflation.
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study indicates that the rise in bank vulnerability after 1980 was attributable not only to deregulation, but also a range of additional factors such as inefficient bank management.



I.	Publication	Khan, Shahrukh R., and Aftab, Safiya (1994), "Assessing the Impact of Financial Reforms on Pakistan's Economy", <i>Pakistan Journal of Applied Economics</i> , Vol. X, No. 1/2.
II.	Sector	Financial Services: Banking
III.	Policy Change	<ul style="list-style-type: none"> <li>- Pakistan's financial reforms in 1990-91 involved a gradual liberalization of banking activities as well as a rationalisation of the interest rate structure.</li> <li>- Two commercial banks were denationalized and ten new private banks permitted to begin operations in August 1991.</li> <li>- The government introduced treasury bills and federal investment bonds in the open market to finance public debt.</li> <li>- The stock exchange was opened to foreign investors.</li> <li>- In August 1992, the government abolished credit ceilings and replaced them with a system of credit/deposit ratios, allowing commercial banks to extend credit up to 30% of their rupee and foreign currency deposits.</li> <li>- The State Bank issued a set of prudential regulations. Banks and non-bank financial institutions were required to respect prescribed debt-equity ratios and limit their exposure to single companies and individual investors.</li> </ul>
IV.	Rationale for Policy Reform	<p>Higher interest rates after financial liberalization were expected to lead to financial deepening, promote investment efficiency and, eventually, economic growth.</p> <p>The creation of a secondary market in government securities was intended to obviate the need for credit controls and reduce reliance on reserve requirement ratios.</p>
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- The assets of the two denationalized banks grew notably.</li> <li>- Higher real interest rates had an insignificant impact on savings and financial deepening over the period 1970-90.</li> </ul>
(b)	Economy-wide	<ul style="list-style-type: none"> <li>- Real interest rates and investment efficiency were negatively associated throughout the 1970-90 period.</li> <li>- The correlation between growth rates and real interest rates was negative over the same period. In this context, the authors point to the deterrent effects of higher capital costs.</li> <li>- In 1991-92, interest payments amounted to about four-fifths of the overall fiscal deficit.</li> </ul>
(c)	Consumer Welfare	Upper-income groups, representing 15% of depositors, benefited most from higher deposit rates.
VI.	Additional Comments	The paper argues in favour of denationalization of banks in a competitive environment. However, the authors do not express support for interest rate liberalization in Pakistan, given the large contribution of interest payments to the fiscal deficit. Besides, they maintain that, as savings are not significantly responsive to real interest rates, liberalization is unlikely to spur economic growth.

I.	Publication	Koo, Bon-Ho (1993), "Industrial Policy and Financial Reforms on Korea" in S. Faruqi (ed.), <i>Financial Sector Reforms in Asian and Latin American Countries</i> , The World Bank, Washington D.C.
II.	Sector	Financial Sector: Banking
III.	Policy Change	<p><i>Liberalization</i> of Korea's financial system in the early 1980s.</p> <ul style="list-style-type: none"> <li>- Deposit and lending rates were liberalized.</li> <li>- Some entry barriers were removed, allowing for the entry of commercial banks, as well as credit and finance companies.</li> <li>- Five nation-wide commercial banks were privatised.</li> <li>- Joint ventures with foreign partners were aimed at establishing linkages with international financial markets.</li> <li>- By 1982, most state loans were no longer provided at preferential interest rates.</li> </ul> <p>Reportedly, liberalization stalled in the early 1990s. Considerable state control in asset management of banks and non-bank financial institutions persisted, with restrictive entry requirements and controls on deposit and lending rates.</p>
IV.	Rationale for Policy Reform	<ul style="list-style-type: none"> <li>- As the Korean economy grew structurally more complex, state control over the financial sector was seen as a source of increasing inefficiency.</li> <li>- A dualistic financial system, underdeveloped markets and a persistent low-interest policy, had impeded financial sector growth.</li> <li>- Liberalization efforts in the early 1980s were thus aimed at promoting private initiative and competition.</li> </ul>
V.	Results	
(a)	Sector-specific:	Rapid financial sector growth buoyed mainly by investment, insurance and finance companies.
(b)	Economy-wide	<ul style="list-style-type: none"> <li>- Owing to the rise in deposit interest rates in the early stages of reform, inflation was successfully controlled.</li> <li>- Low inflation and high real rates of return on financial assets helped to increase demand for financial assets relative to goods.</li> <li>- The entry of several non-bank financial institutions contributed significantly to an increase in domestic savings.</li> </ul>
(c)	Consumer Welfare	Real interest rates on longer-term time deposits turned positive in 1965. The resulting dramatic rise in deposits came to an end when real deposit rates became negative in the 1970s.
VI.	Additional Comments	The paper indicates that, in the 1980s, the most significant liberalization measures were still on the drawing board. The author expects that more liberal regulations on foreign exchange and capital transactions would facilitate Korea's integration into international financial markets.

I.	Publication	Lamberte, Mario B. (1993), "Assessment of the Financial Market Reforms in the Philippines: 1980-1992", <i>Journal of Philippine Development</i> , Volume Xx.
II.	Sector	Financial Services: Banking
III.	Policy Change	<ul style="list-style-type: none"> <li>- Restructuring of the Philippine banking system in the early 1980s involved mergers and consolidation among banks.</li> <li>- Bank entry was allowed in 1989 and bank branching regulations were relaxed in 1991.</li> <li>- Interest rate ceilings on all deposit and long-term loans were removed in 1981, those on short-term loans in 1983.</li> <li>- In the late 1980s, the Central Bank introduced rules to strengthen prudential regulations.</li> <li>- Deregulation of the foreign exchange market began in 1992.</li> </ul>
IV.	Rationale for Policy Reform	<p>Reforms were aimed at improving efficiency and increasing the level of financial intermediation. Restructuring of the banking system was aimed at improving the availability of medium- and long-term funds to the industrial sector and promoting competition in financial markets.</p> <p>The efficiency of foreign exchange allocation in the pre-reform period suffered from stringent exchange controls and restrictions on inter-bank trading. Deregulation of the foreign exchange market was expected to help enhance market efficiency and achieve exchange rates at levels conducive to macroeconomic adjustment and long-term economic growth.</p>
V.	Results	<ul style="list-style-type: none"> <li>- The level of financial intermediation which had increased in the early 1980s fell significantly in the mid-1980s as a result of political and economic instability. Negative average real interest rates on deposits for most of the period 1980-1990 also contributed to the decline in intermediation levels.</li> <li>- The share of long-term loans in total loans of commercial banks increased in the early 1980s following the removal of interest rate ceilings.</li> <li>- Between 1980 and 1990, levels of bank concentration increased significantly as a result of the government's encouragement of mergers and consolidations, and high barriers to entry.</li> <li>- Due to losses incurred by banks in the 1981 liquidity crisis, bank spreads declined. After 1983, however, bank concentration led to an increase in spreads and larger profit margins.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
VI.	Additional Comments	Weak competition in the Philippine banking sector contributed to low average real interest rates on deposits and, therefore, low levels of financial intermediation throughout the 1980s. The author maintains that interest rate liberalization is liable to widen the gap between lending and deposit rates if entry barriers are not reduced.

I.	Publication	Le-Fort, Guillermo R. (1994), "The Financial System and Macroeconomic Stability: The Chilean Experience" in S. Faruqi (ed.), <i>Financial Sector Reforms, Economic Growth, and Stability: Experiences in Selected Asian and Latin American Countries</i> , The World Bank, Washington D.C.
II.	Sector	Financial Sector: Banking
III.	Policy Change	<ul style="list-style-type: none"> <li>- <i>Domestic deregulation</i> of the Chilean financial sector in the early 1970s involved re-privatization of commercial banks, elimination of restrictions on interest rates and banking activities, and authorization of new financial institutions.</li> <li>- <i>External liberalization</i> in 1980 included the removal of all restrictions on international capital flows.</li> <li>- <i>Re-regulation</i> under the Banking Law of 1986.</li> </ul>
IV.	Rationale for Policy Reform	<p>Until 1973, most banks in Chile were state-controlled, real interest rates were negative, and credit was restricted.</p> <p>Liberalization of the financial system was supposed to stimulate economic growth, increase savings and improve the quality of investment through market-based allocation.</p>
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- In the post-reform period, distortions in the financial system rendered it vulnerable to external and domestic shocks. Apart from external shocks, an unfavourable current-account position led to large expenditure adjustments that triggered an unprecedented financial and economic crisis.</li> <li>- The savings and loan systems collapsed during the period 1975-78.</li> <li>- Between 1981 and 1983, almost all private commercial banks suffered insolvency and were taken over by the public sector. The vulnerability of the financial system was associated with an increasing volume of dubious loans to clients overexposed to currency and interest rate risks. Bank supervision was almost non-existent.</li> <li>- The Banking Law of 1986 eventually sought to introduce appropriate regulation and supervision.</li> </ul>
(b)	Economy-wide	<ul style="list-style-type: none"> <li>- As economic agents thought that the government provided protection against bank failures, high interest rates proved insufficient to contain excessive spending.</li> <li>- The eventual reform of the domestic financial system in 1986 and its integration into the international financial system had a positive impact on macroeconomic stability.</li> </ul>
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The paper maintains that the financial liberalization process initiated in the early 1970s was flawed as the focus was on eliminating rather than reforming existing regulations. The author emphasizes that bank supervision and the existence of an insurance mechanism are crucial to any liberalization programme. Regulations are considered necessary to prevent excessive risk taking.

I.	Publication	Llewellyn, David T. (1992), "The performance of banks in the UK and Scandinavia: a case study in competition and deregulation", <i>Quarterly Review</i> , No. 3.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Deregulation of the banking sector in Scandinavia and the UK in the 1980s.</i>
IV.	Rationale for Policy Reform	Deregulation was motivated by the perceived need to improve efficiency and competitiveness.
V.	Results	<p>- An increase in competition led to a sharp rise in bank lending during the 1980s. In Sweden, bank advances to the non-bank public rose by 92% between 1987 and 1991, while outstanding loans by mortgage institutions expanded by 89%. In the UK, bank lending to the private sector expanded at an average annual rate of 20% throughout the 1980s.</p> <p>- In the UK and Sweden, interest rate margins shrank, banks eased credit rationing and raised risk thresholds. Profitability initially rose to decline substantially as banks had to make massive provision for bad debts in 1990 and 1991. In Norway, the government took over banks in order to avoid financial collapse.</p> <p>- Similar to Scandinavia, the post-deregulation decline in profitability in the UK was not related to any decline in operating profits, which in fact were 48% higher in 1991 than in 1986.</p>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
VI.	Additional Comments	The paper attributes the post-deregulation deterioration in financial performance of banks in Scandinavia and the UK to a combination of cyclical and structural factors. It suggests that, while sudden deregulation might lead to a more efficient, dynamic and less credit-rationed banking sector, it could also introduce an element of instability into the system.

I.	Publication	Lora, Eduardo et al. (1994), "El fortalecimiento del sector financiero en el proceso de ajuste: liberalización y regulación. el caso colombiano", in Roberto Frenkel (ed.), <i>El fortalecimiento del sector financiero en el proceso de ajuste: liberalización y regulación</i> , Buenos Aires (Centro de Estudios de Estado y Sociedad).
II.	Sector	Financial Services: Banking
III.	Policy Change	<p>- Liberalization of the Colombian financial sector started during the 1980s and was completed by 1990. However, there were some sporadic interventions, like those in 1992.</p> <p>- A system of affiliated banks was adopted in 1990 as intermediate institutions between universal and specialized banks. Banks and other financial entities were allowed to invest in these affiliates. Entry of new financial institutions was deregulated; restrictions on foreign investment were eliminated; and a privatization scheme was adopted.</p> <p>- The Central Bank became autonomous in 1991.</p> <p>- In 1992, various new regulations defined the structure and scope of operations of financial entities and their affiliates.</p>
IV.	Rationale for Policy Reform	In the mid 1980s, the financial sector suffered a severe crisis. Measures were taken to improve solvency, profitability and quality of assets.
		The restructuring of the financial sector in the 1990s was undertaken in the context of a broader programme of economic modernization which included trade liberalization, the elimination of restrictions on foreign investment, labour market reforms and the partial liberalization of the exchange market.
V.	Results	- The share of State-owned banks in total bank assets dropped from 60% in 1989 to 37% in 1992.
(a)	Sector-specific	<p>- Spreads varied greatly over time and between intermediaries. For banks, they had been falling since the mid-1980s; the authors suggest that limited competition might inhibit further reductions.</p> <p>- Persistently low levels of productivity and efficiency might be explained by entry and exit barriers and/or strong segmentation in the sector.</p> <p>- Financial deepening (i.e. the role of the formal sector in financial intermediation) has remained relatively low.</p>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The need for macroeconomic stabilization complicated efforts to reform the financial sector. In particular, to contain capital inflows after exchange rate liberalization (at a time of high domestic interest rates), the government introduced high reserve requirements and temporarily regulated interest rates.

I.	Publication	Marshall, Kathryn G. (1994), "Competition and growth: changes in Indonesia's banking sector since 1988", <i>Journal of Asian Business</i> , Volume 10, No. 3.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of the Indonesian banking sector since the early 1980s.</p> <ul style="list-style-type: none"> <li>- Interest rate controls on time deposits in state-owned banks were lifted and credit quotas eliminated in 1983.</li> <li>- The 1988 reforms eased branching restrictions and allowed for the licensing of both private domestic and joint venture banks.</li> <li>- The government lifted its guarantee on time deposits in state-owned banks and stressed its resolve not to support insolvent banks in order to discourage excessive risk-taking in an increasingly competitive environment.</li> </ul>
IV.	Rationale for Policy Reform	No comment
V.	Results	<ul style="list-style-type: none"> <li>- The 1983 deregulation package prompted a dramatic increase in the size of private banks, accounting for most of the growth in total bank assets during the period 1983 to 1988.</li> <li>- By 1992, the number of banks had doubled and the average number of branches per bank risen from 8 to 21.</li> <li>- The growth of total bank assets increased from 13% per year during 1984-1988 to 31% per year from 1989 through 1991.</li> <li>- Priority lending as a share of total state bank lending fell from 37% in March 1990 to 23% in December 1992.</li> <li>- Although the 1988 deregulation allowed for a significant number of new entrants, the growth in assets after 1988 was attributable mainly to the expansion of previously established private banks. By 1992, these banks were typically about seven times larger than the new entrants.</li> <li>- Increased competition as a result of the 1988 deregulation induced a decline in bank profits, including those of larger incumbent banks.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
VI.	Additional Comments	The paper, completed prior to the recent financial turmoil, compliments the government's decision to withdraw deposit protection in order to discourage excessive risk-taking in a period of rapid expansion and growing competition.

I.	Publication	McCallie, John Douglas (1990), The impact of deregulation and deposit insurance on the thrift industry: an empirical analysis, Ph.D. dissertation, Auburn University, Alabama.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> in the United States with the passage of the Depository Institution Deregulation and Monetary Control Act (DIDMCA) and the Garn-St. Germain Act (GARN) in the early 1980s.</p> <ul style="list-style-type: none"> <li>- The thrift industry was allowed to increase lending in areas other than home mortgages and provide interest-bearing transaction accounts.</li> <li>- The DIDMCA increased the maximum coverage of federal deposit insurance from US\$40,000 to US\$100,000</li> </ul>
IV.	Rationale for Policy Reform	Before the 1980s, regulations helped to preserve a profitable niche market for thrift firms and condone inefficiencies.
V.	Results	
(a)	Sector-specific	Since the beginning of the 1980s, more than 500 thrift firms failed; the ensuing costs were estimated at over US\$1 trillion.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	<p>The paper discusses whether the crisis in the thrift industry was associated with the continued existence of federal deposit insurance after deregulation or deregulation itself.</p> <p>The first hypothesis maintains that a flat-rate deposit insurance implicitly subsidized riskier loans as subsequent losses were partly passed on to the taxpayer. This reduced the incentive for the industry to thoroughly scrutinize investment risks. The deregulation hypothesis holds that it was primarily a lack of government control as a result of the deregulation laws of the 1980s which caused an increase in business failures.</p> <p>Empirical tests conducted by the author indicate that deposit insurance is itself an important source of financial instability. A strong positive relationship was found to exist between the level of insurance and the magnitude of the thrift problem. This relationship has far greater empirical significance (by a factor of up to two) than the combined effect of DIDMCA and GARN, the two deregulatory legal acts. The author thus advocates reforms of the system of deposit insurance.</p>
		<p>Deregulation was found to be an important factor in explaining the <i>number</i> of thrift firm failures. Considering that each firm had relatively few assets, this suggests, however, that the extent of the crisis can not be blamed on deregulation as such. Failures can be interpreted as a result of post-deregulation competition which leads to the elimination of less efficient companies.</p> <p>The author feels that a policy of nationwide branch banking would help to ensure stability in financial markets. Confidence in institutions might then be achieved through diversification and prudent management rather than by deposit insurance schemes.</p>



I.	Publication	McLeod, Ross H. (1996), "Control and Competition: Banking Deregulation and Re-Regulation in Indonesia", <i>Working Paper</i> (No. 96/7), Department of Economics, Research School of Pacific and Asian Studies, Canberra.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic Deregulation</i> in Indonesia's banking sector since the early 1980s; interest rate controls on time deposits in state banks were lifted; controls on the lending of all banks were removed and most subsidised loan programs were terminated.</p> <p><i>External liberalization</i> in October 1988 involved the opening of the sector to new private domestic banks and joint-venture banks with foreign participation.</p> <p>Restrictions on the domestic banks' access to foreign exchange licences were eased.</p> <p>Minimum reserve requirements were significantly reduced.</p> <p>Controls on banks' overseas borrowing were removed in March 1989. At the same time, prudential regulations were widened to include limits on foreign exchange exposure.</p> <p>All remaining subsidised loan programs were terminated by 1990.</p> <p>Foreigners were allowed to buy shares in domestic banks listed on the stock exchange from February 1992.</p> <p><i>Re-regulation</i> of the banking sector in the mid-1990s</p> <p>Controls on bank lending were imposed; minimum reserve ratios were increased; licensing procedures for new bank branches were tightened; and lending by non-banks and non-intermediated financial institutions was made subject to prudential control.</p>
IV.	Rationale for Policy Reform	<p>The Indonesian banking sector was dominated by five state commercial banks throughout the 1970s. Restrictions on the establishment of new private (domestic and foreign-owned) banks and on the expansion of existing branch networks stifled competition. Deregulation was aimed at terminating state-sponsored loan programs and exposing state banks to competition.</p> <p>The re-introduction of lending controls in the mid-90s was intended to contain excessive growth of bank lending which was seen as a major source of inflation.</p>
V.	Results	
(a)	Sector-specific	<p>- The volume of time deposits (as a percentage of nominal GDP) increased significantly in 1983 as a result of the removal of interest rate controls. Between 1990 and 1992, foreign currency deposits also grew rapidly.</p> <p>- New domestic and foreign joint ventures were established and several private banks opened new branches.</p>
(b)	Economy-wide	The persistence of inflation, seen as resulting from an increase in bank lending, provided the rationale to strengthen controls of the financial sector. The author, however, rejects the possibility that an increase in financial intermediation could have had inflationary consequences since it involved a redistribution of spending power between entities, but did not increase total spending.
(c)	Consumer Welfare	- Improved competition enhanced the quality of financial intermediation and payment services.

VI. Additional Comments	Involvement of the major banks in large-scale currency and real estate speculation in 1990 led to a slowing down of the deregulation process. The author holds that the consequent bankruptcy of these banks resulted not from a lack of prudential regulation but from the banks' violation of existing rules. He attributes excessive risk-taking by banks to the Central Banks' inability to enforce regulations and ensure compliance with prudential standards.
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I.	Publication	Milbourne, Ross D., and Cumberworth, Matthew (1991), "Australian banking performance in an era of deregulation", <i>Australian Economic Papers</i> , No. 57.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation followed by liberalization.</i> Relaxation of regulations in the Australian financial system in two stages over the period 1980-88: - Phase I: Removal of interest rate ceilings and portfolio restrictions. - Phase II: Introduction of foreign banks in 1985.
IV.	Rationale for Policy Reform	Deregulation was expected to promote efficient resource allocation and cost savings.
V.	Results	<i>Short-run implications:</i> - The initial stages of competition, following deregulation, saw a decline in profit rates. This was attributable mainly to attempts by banks to increase their market share through high deposit interest rates and/or a reduction in lending rates.  <i>Long-run implications:</i> - With the entry of foreign banks in 1985, profit rates declined further (from 18.1% to 12.8% over the period 1980-88). However, inconsistent with a priori expectations, interest margins actually <i>widened</i> with foreign bank entry.  - The widening of interest margins as well as the narrowing of profits since 1985 are both attributed to increased extension of risky loans.  - A decline in unit labour costs as well as a 25%-reduction in the ratio of operating expenses to assets testifies to increased efficiency of the banking sector through 1980-88.  - Over the period 1983 to 1989, employment in the financial sector rose by 27% relative to other sectors.  However, while deregulation generated a highly competitive wholesale banking sector, retail banking remained dominated by four banks. According to the authors, this reflects high fixed costs and natural barriers to entry.
(a)	Sector-specific	
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Consumers benefitted from more efficient financial intermediation.
VI.	Additional Comments	The authors discuss the role of risky loans in determining both interest as well as profit margins. They provide insights into how, contrary to expectations, interest margins may increase with deregulation.

I.	Publication	Milkove, Daniel L, and Sullivan, Patrick J. (1990), "Deregulation and the Structure of Rural Financial Markets", Rural Development Research Report, United States Department of Agriculture, Washington D.C.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic Deregulation</i> of the U.S. financial system in the early 1980s. Restrictions on bank branching were eased.
IV.	Rationale for Policy Reform	No comment
V. (a)	Results Sector-specific	<p>- The number of locally-owned rural banks declined due to mergers and failures.</p> <p>- The majority of the 484 banks that failed between 1983 and 1987 were located in rural communities and had above-average ratios of farm loans. Most of these banks were small and located in States that restricted bank branching. Lack of geographical diversification, compounded by volatile interest rates and mismanagement, eventually disabled locally-owned rural banks from meeting other credit demands.</p> <p>- Financial services in most rural communities remained intact as failed banks were taken over as branches by other banks or restarted under new owners, usually urban-based banking organisations.</p> <p>- Although deregulation did not directly affect the total number of banks in most rural markets, it significantly altered the structure of local banking. During 1980-86, although the number of rural bank offices increased, the number of banking firms operating in rural America declined, leaving borrowers vulnerable to oligopolistic lending behaviour.</p> <p>- Within the rural bank portfolios of urban-based banks, the size of commercial and industrial loans was significantly larger than that of agricultural loans.</p> <p>- The rural banking system became less geographically specialized. During 1980-86, the number of single-office banks declined sharply as a result of new liberalized branching laws. The ensuing diversification of rural banks reduced the pre-deregulation vulnerability to credit problems in the event of a local economic downturn.</p>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	After restrictions on bank branching were eased in the 1980s, a larger proportion of rural communities came to be served by a combination of local and urban banks. On average, however, rural borrowers did not have access to a similar range of banking service providers as urban borrowers.

VI. Additional Comments	<p>The report discusses whether bank deregulation has increased rural communities' reliance on regional and national banks. Locally owned banks are deemed critical to rural economic development since rural bankers are more familiar with local residents and their businesses. Experts have argued that large urban-based banks would transfer rural deposits for use in cities where lending opportunities are better and returns higher. At the same time, however, larger banks offer a wider variety of financial services and provide greater deposit security as a result of geographical diversification.</p> <p>The authors concede that the net impact of these effects remains to be analysed.</p>
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I. Publication	Naughton, Tony, and Harvey, Charles (1996), "The performance of foreign banks in a deregulated environment: evidence from Australia and Korea", <i>Economic Papers</i> , No. 1 (Economic Society of Australia).
II. Sector	Financial Services: Banking
III. Policy Change	<p>The Korean banking sector was characterised by strict government control over ownership, interest rates and priority lending. Although approximately 70 foreign banks operated in Korea's domestic market in 1995, the banking system remained tightly regulated.</p> <p>Liberalization initiatives: Over the period 1967 to 1983, several foreign banks entered the domestic market. They were not allowed to open new branches and their capital was subjected to strict restraints. In 1984, restrictions (as well as privileges) for foreign bank operations were eliminated. In 1990, the Korean-U.S. Financial Policy Talks resulted in an acceleration of external liberalization.</p> <p>Australia's financial deregulation, beginning in the early 1980s, was faster and more extensive. It included significant changes in the exchange rate and interest rate regimes and the banking sector's structure and operation. An open policy adopted in 1992 allowed almost any foreign bank to operate a licensed branch in Australia.</p>
IV. Rationale for Policy Reform	<p>Foreign banks were provided access to the Korean financial market as part of a strategy to attract foreign capital and facilitate exports of domestic manufactured goods.</p> <p>Australia's liberalization programme was genuinely intended to promote efficiency and competition in domestic financial markets.</p>
V. Results (a) Sector-specific	<p><u>Republic of Korea:</u></p> <ul style="list-style-type: none"> <li>- The volume of deposits and loans grew very rapidly over the period 1970 to 1992. Korea's traditional balance of payment deficit turned to a large surplus in 1986, reducing the volume of businesses conducted by foreign banks. Foreign currency loans offered by foreign banks decreased by 26.5% between 1987 and 1990. The market share of foreign banks tended to decline through 1985-89, despite the extension of national treatment.</li> </ul> <p><u>Australia:</u></p> <ul style="list-style-type: none"> <li>- The sudden increase in competition from foreign banks in the 1980s led domestically-owned banks to significantly expand their lending to the corporate sector. Bad loans resulted in huge losses for certain banks.</li> <li>- Reflecting the increase in risks associated with an expansion in lending, interest margins rose even though average operating costs fell.</li> </ul>

	- The entry of foreign banks helped integrate Australia into Asia-Pacific financial markets. It facilitated both outward and inward investment and contributed significantly to the development of one of the world's major foreign exchange sectors.
(b) Economy-wide	No comment
(c) Consumer Welfare	No comment
VI. Additional Comments	Korea's and Australia's deregulation policies illustrate contrasting approaches in terms of motivation, pace and extent of change.

I. Publication	Noya, Nelson, and Dominoni, Daniel (1994), "El fortalecimiento del sector financiero en el proceso de ajuste: liberalización y regulación. El caso uruguayo", in Roberto Frenkel (ed.), <i>El fortalecimiento del sector financiero en el proceso de ajuste: liberalización y regulación</i> , Buenos Aires (Centro de Estudios de Estado y Sociedad).
II. Sector	Financial Services: Banking
III. Policy Change	<p>- <i>Liberalization</i> of the economy between 1974 and 1979: the exchange market was liberalized; restrictions on international capital movements were removed; interest rates were deregulated; restrictions on bank lending and on foreign currency trading were eliminated; compulsory reserve requirements and rediscount operations were abolished; refinancing requirements and credit ceilings per client were made more flexible; and entry requirements for new entities were relaxed.</p> <p>- In 1982, after a severe financial crisis, the Central Bank acquired an important amount of the non-performing loans of the private banking sector. Domestic private banks largely disappeared by the end of the 1980s.</p> <p>- From 1989, prudential regulation was based on the recommendations by the Basle Committee.</p> <p>- In 1991, minimum reserve requirements were reformulated, the same rules applied to private (foreign-owned) and state-owned banks.</p> <p>- The Central Bank was given more supervisory powers in 1992. The government was no longer committed to act as a lender of last resort.</p>
IV. Rationale for Policy Reform	After the 1982 crisis, private financial intermediaries were very hesitant to extend loans to domestic firms. By contrast, relying on government guarantees, State-owned banks acted with little prudence. The reforms in the late 1980s were aimed at strengthening market-based intermediation.
V. Results (a) Sector-specific	<p>- Financial intermediation increased rapidly during the 1970s. However, this was based mainly on capital inflows rather than on an increase in domestic savings.</p> <p>- By the end of the 1980s, private banks concentrated on large credits and deposits, had few clients, small networks and few employees. State-owned banks took care of both individual small accounts and high-risk firms.</p> <p>- While interest rates and margins had always been larger and more volatile in pesos than in dollars, the difference increased after 1990.</p>



	<p>- By the mid 1990s, dollar-denominated credits accounted for a very large share of bank lending.</p> <p>More recently, the business segmentation between public and private banks seemed to be breaking down. However, mobilization and use of domestic savings for investment has remained weak.</p>
(b) Economy-wide	As the financial sector intermediates mainly in dollars, the exchange risk continues to lie with the individual firms. In turn, this seems to result in greater macroeconomic instability, as there is a more direct influence of exchange rate changes on borrowing and investment decisions.
(c) Consumer Welfare	No comment
VI. Additional Comments	The study suggests that the virtual disappearance of the domestic banking sector had important consequences for resource allocation. For a variety of reasons, foreign-owned banks tended to be more risk averse than domestic banks.

I.	Publication	Penner, R. (1994) "Financial Liberalization in an Agrarian Economy: The Case of Paraguay" in S. Faruqi (ed.), <i>Financial Sector Reforms, Economic Growth, and Stability: Experiences in Selected Asian and Latin American Countries</i> , The World Bank, Washington D.C.
II.	Sector	Financial Sector: Banking
III.	Policy Change	<p>Financial Reform, 1989-92:</p> <p><i>External liberalization</i> involving a free-floating exchange rates, current and capital account liberalization.</p> <p><i>Internal liberalization</i> of interest rates and credit allocation.</p> <p><i>Banking supervision</i> under which the Central Bank increased the minimum capital requirements for banks and financial companies.</p> <p><i>Monetary and fiscal management</i> included budget control and a reduction of public sector loans.</p>
IV.	Results	<ul style="list-style-type: none"> <li>- Rise in real interest rates to over 10%.</li> <li>- Increase in gross domestic savings.</li> <li>- Extension of bank intermediation, particularly in foreign currency.</li> <li>- Banks expanded their loans to the private sector, reflecting not only increased intermediation activities, but also the reduction of public sector expenses.</li> <li>- Re-direction of credit flows from development loans for primary and manufacturing activities to consumer loans.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	No comment
V.	Additional Comments	The paper advises against financial liberalization in an unstable agrarian economy. Financial liberalization brought about a decline in the real flow of funds from commercial banks to the plantations; banks preferred to invest their assets in less risky activities such as export financing.

I.	Publication	Perez-Campanero, Juan, and Leone, Alfredo M. (1991), "Liberalization and Financial Crisis in Uruguay, 1974-87" in <i>Banking Crises</i> , Washington, D.C.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation and external liberalization</i> of the Uruguayan financial sector in the mid and late 1970s:</p> <ul style="list-style-type: none"> <li>- Liberalization of international capital flows preceded liberalization of domestic financial markets.</li> <li>- Financial liberalization involved lower reserve requirements and entry barriers, the removal of interest rate ceilings and elimination of prudential regulations concerning maximum financing and risk concentration.</li> </ul> <p><i>Regulatory Reform</i> in 1989: Extensive financial sector reform involved rehabilitation and liquidation of insolvent banks. Moreover, accounting rules for financial institutions were reviewed and the regulatory and supervisory role of the Central Bank was strengthened.</p>
IV.	Rationale for Policy Reform	<p>During the pre-deregulation period, negative real interest rates encouraged capital flight and led to the contraction of the financial market.</p> <p>The economy was characterised by low GDP growth, high inflation, low level of domestic savings, recurrent balance of payment crises, growing fiscal deficits, and high unemployment.</p> <p>Deregulation was expected to remove distortions in domestic markets and eliminate fiscal imbalances.</p>
V. (a)	Results Sector-specific	<ul style="list-style-type: none"> <li>- Fast liberalization of capital transactions promoted capital inflows and a surge in borrowing, particularly in foreign currency.</li> <li>- Foreign currency deposits grew much faster than domestic currency deposits, increasing about six times between 1974 and 1977.</li> <li>- The spread between lending and deposit interest rates declined after 1976.</li> <li>- Real interest rates were extremely volatile between 1976 and 1985 owing to exogenous factors such as international interest rates and tradable goods prices. The debt-service burden of Uruguayan firms increased as real interest rates shot up within a short time-span.</li> </ul>
		<ul style="list-style-type: none"> <li>- Devaluation in Argentina significantly reduced confidence in the sustainability of the Uruguayan exchange rate regime. In response to increasing interest rates, firms began to heavily borrow dollars.</li> <li>- Net earnings of firms declined, reflecting an increase in financial costs. Further borrowing was intended to offset the decline in internal sources of funds.</li> </ul>

	<ul style="list-style-type: none"> <li>- Devaluation of the peso, rise in interest rates and the build-up of foreign currency debt precipitated a financial crisis in early 1982, leaving many banks insolvent.</li> <li>- The absence of adequate banking supervision exacerbated the crisis.</li> </ul>
(b) Economy-wide	<ul style="list-style-type: none"> <li>- Delayed removal of barriers in domestic commodity and labour markets complicated monetary policy management and translated into high inflation in the early reform years.</li> <li>- Domestic savings were not significantly influenced by financial liberalization.</li> <li>- The ratio of private investment to GDP increased in response to the rationalisation and reduction of profit taxes as well as the elimination of quotas on imports of capital goods.</li> <li>- The efficiency of investment improved, reflecting improved allocation of credit, better utilization of capacity, rapid growth in less capital-intensive industries and reduced restrictions on imports of capital goods.</li> </ul>
(c) Consumer Welfare	No comment
VI. Additional Comments	The paper discusses the need for macroeconomic stability and banking supervision to ensure successful financial liberalization; the factors that caused Uruguay's financial crisis were both macroeconomic and regulatory in nature. The authors elaborate on the pace and sequencing of financial relative to trade liberalization and the liberalization of capital transactions.

I.	Publication	Phylaktis, Kate (1997), "Financial liberalization and stabilization policies: the experience of Chile", in K.L. Gupta (ed.), <i>Experiences with Financial Liberalization</i> , Kluwer Academic Publishers, Massachusetts.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation</i> of the financial sector in the early 1970s.</p> <ul style="list-style-type: none"> <li>- Interest rates were completely freed and reserve requirements lowered in 1975.</li> </ul> <p><i>External liberalization</i></p> <ul style="list-style-type: none"> <li>- Capital account liberalization began in 1974 and intensified in 1979.</li> <li>- To encourage foreign direct investment, restrictions on repatriation of profits, dividends and royalties were relaxed in 1977.</li> </ul>
IV.	Rationale for Policy Reform	The general thrust of reforms was to strengthen the role of economic incentives, thus restoring economic growth, rationalizing resource allocation and reducing the budget deficit.
V.	Results	<ul style="list-style-type: none"> <li>- Nominal and real interest rates remained high throughout the period of reform. Demand for credit was inflated by requests from unprofitable firms that continued to borrow in order to avoid bankruptcy. The general public, encouraged by expectations of high long-term growth, increased credit-financed spending. High demand for credit further raised domestic interest rates, thereby creating incentives to borrow abroad.</li> <li>- Rising interest rates ultimately consigned many creditors and their banks to insolvency. As the situation was further compounded by inadequate banking supervision, a financial crisis began in 1981. The number of bankrupt financial institutions reached 810 by end-1982.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	No comment

VI. Additional Comments	<p>The study raises questions about the appropriate timing, pace and sequencing of financial liberalization. It discusses the possible destabilizing effects of capital inflows following rapid liberalization of the capital account.</p> <p>The author argues in favour of gradual liberalization, which would spread increases in foreign debt over time and avoid abrupt real currency appreciation. He feels that the Chilean authorities were well advised to liberalize the domestic financial market by freeing interest rates before abolishing foreign exchange restrictions. However, in his view, weak bank supervision and insufficient prudential regulation, along with free state deposit insurance and macroeconomic instability, led to the crisis after interest rates had been completely liberalized within a short period of time.</p>
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I.	Publication	Rezvanian, Rasoul; Rangan, Nanda; and Grabowski, Richard (1992), "Market structure and banking production economies: evidence from the 1980s deregulation", <i>The Journal of Applied Business Research</i> , No. 3.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the U.S. banking industry with the passage of the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) in 1980 and the Garn-St. Germain Act in 1982 (see above).
IV.	Rationale for Policy Reform	Interest rate ceilings and geographic limitations on bank expansion limited the potential to exploit economies of scale. Regulation on products hampered the realization of economies of scope. Deregulation was intended to remove these constraints.
V.	Results	<ul style="list-style-type: none"> <li>- The study suggests that large banks succeeded in reaping economies of scope, thus benefitting from the cost advantage associated with joint production of different outputs.</li> <li>- Examination of scale economies indicates a relative increase in optimal bank size from 1979 to 1987. (However, the cost functions for the sample of banks under consideration for the years 1979, 1983 and 1987 were statistically different).</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	No comment
VI.	Additional Comments	While the study attributes the realisation of scale and scope economies primarily to deregulation, it also draws attention to the impact of technology in helping banks increase their optimal size and diversify their product base.

I. Publication	Rozenwurcel, Guillermo, and Fernández, Raúl (1994), "El fortalecimiento del sector financiero en el proceso de ajuste: el caso argentino", in Roberto Frenkel (ed.), <i>El fortalecimiento del sector financiero en el proceso de ajuste: liberalización y regulación</i> , Buenos Aires (Centro de Estudios de Estado y Sociedad).
II. Sector	Financial Services: Banking
III. Policy Change	<p>Plan BONEX: In 1990, bonds in domestic currency which represented basically all short-term debt of the public sector were exchanged for dollar-denominated bonds.</p> <p>Convertibility Plan in 1991:</p> <ul style="list-style-type: none"> <li>- free convertibility of domestic currency;</li> <li>- financial entities were allowed to issue loans in dollars or pesos;</li> <li>- deregulation of the stock market (financial entities and firms were allowed to issue tradeable bonds in foreign currency); and</li> <li>- tax reform, including improvements of the tax collection system.</li> </ul>
IV. Rationale for Policy Reform	The 1980s were characterized by high and growing domestic debt of the public sector and low private savings. Investors increasingly favoured foreign assets.
V. Results	
(a) Sector-specific	<ul style="list-style-type: none"> <li>- The Argentinian financial sector consisted of a large number of entities. Although indicators of productivity had improved over time, by 1992 they were still low by international standards.</li> <li>- Before the reforms, public banks accounted for 50% of deposits and 63% of loans. While falling since 1990, they still held major shares in 1992.</li> <li>- Real interest rates on debts and loans continued to exceed international rates. Spreads, although falling, remained high. This is attributed by the authors, among other things, to high costs of intermediation. Rates were especially high for consumer credits and loans to small and medium-sized enterprises.</li> </ul>
(b) Economy-wide	<ul style="list-style-type: none"> <li>- Hyperinflation ended in March 1990. Despite continued inflationary pressure, deposits started to increase by mid-1990.</li> <li>- Monetization of the economy was reduced to minimum levels: M3 amounted to only 4% of GDP during the first quarter of 1990. The fiscal deficit came down.</li> <li>While inflation fell after 1987, M3 grew to 17% of GDP, reaching again the level of 1986. Capital inflows allowed for significant credit expansion and helped to reduce domestic interest rates.</li> </ul>



	- The recovery process went along with renewed inflationary pressures, currency overvaluation and a worsening of the current account and the balance of payments. While consumption expanded significantly, investment increased only slightly.
(c) Consumer Welfare	No comment
VI. Additional Comments	The publication traces the Argentinian economy's short-term response to improved monetary and financial conditions within an increasingly liberal regulatory framework. Although the system has regained consumer confidence, domestic savings continued to fall short of the capital needs associated with strong investment and economic growth.

I.	Publication	Soyibo, Adedoyin, and Aadekanye, Femi (1992), "Financial system regulation, deregulation and savings mobilization in Nigeria", Nairobi (AERC Research Paper).
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the Nigerian financial system in August 1987. - Interest rates were decontrolled. - The policy of directing credit towards sectors with high social rates and low commercial rates of return was relaxed.
IV.	Rationale for Policy Reform	Deregulation was based on the premise that reasonably high <i>ex ante</i> real interest rates encourage savings and, thus, promote economic growth.
V.	Results	
(a)	Sector-specific	No comment
(b)	Economy-wide	- The paper finds a weak positive correlation between financial liberalization and aggregate savings in Nigeria.  - It suggests that <i>ex post</i> rather than <i>ex ante</i> real interest rates are significant determinants of savings and real money demand. ( <i>Ex ante</i> real interest rates account for <i>expected</i> inflation while <i>ex post</i> rates are based on actual inflation).
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study explores the relationship between financial liberalization and the mobilisation of aggregate savings. It does not elaborate on the impact of liberalization on other macroeconomic variables.

I.	Publication	Sheng, A. (1996), "Financial Liberalization and Reform, Crisis and Recovery in the Chilean Economy, 1947-87" in A. Sheng (ed.), <i>Bank Restructuring: Lessons From the 1980s</i> , World Bank, Washington, D.C.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> and external liberalization of the Chilean financial sector in the 1970s. Reforms included bank privatisation, licensing of financial services, reduction of banks' reserve requirements, creation of index-linked financial instruments, gradual freeing of capital flows and elimination of interest rate ceilings, abolition of most credit allocation controls and of barriers to entry.
IV.	Rationale for Policy Reform	No comment
V. (a)	Results Sector-specific	<ul style="list-style-type: none"> <li>- Financial intermediation expanded considerably with financial assets rising from 20% of gross national product in 1975 to 48% in 1982.</li> <li>- Excessively high real interest rates (averaging 77%), went along with the proliferation of distress borrowing during the period 1975-82.</li> <li>- The volume of capital inflows grew significantly throughout the 1970s. By 1982, external debt stood at 70% of GDP.</li> <li>- The banking system grew highly concentrated with the five largest banks accounting for 45% of total credit and 66% of nonperforming loans.</li> <li>- Widespread financial instability through the period 1973-81 culminated in an economic crisis in 1981-83.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment

VI. Additional Comments	<p>The study highlights the financial, monetary and economic policies that translated into rapid expansion and excessive risk-taking by domestic and foreign financial institutions, which extended large loans to undercapitalized and highly indebted firms. The author maintains that highly leveraged and decapitalized banks are more likely to forgo long-run productive investments to engage instead in short-run, high-risk activities in order to recapitalize themselves. A lack of strong prudential supervision ultimately led to excessive risk concentration and capital flight.</p> <p>The market's ability to correct structural deficiencies through high interest rates was undermined by the State guaranteeing bank deposits and private sector external borrowing. Moreover, the author holds that institutional and other imperfection associated with long-entrenched financial repression tend to linger on, preventing markets from adjusting rapidly to price-based credit allocation.</p> <p>The study also addresses real sector developments and the impact of the international recession in 1981-85.</p>
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I.	Publication	Suwandi, Titin (1995), Indonesian banking post-deregulation: moral hazard and high real interest rates, Canberra (Economics Division Working Papers, Research School of Pacific and Asian Studies).
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the Indonesian banking sector since the early 1980s.
IV.	Rationale for Policy Reform	Deregulation was aimed at reducing government intervention and promoting market-based adjustment. Positive real interest rates were expected to favour financial over non-financial savings, leading to the deepening of financial markets and improving the productivity of investment. Controls in the pre-deregulation era had led to negative real deposit and loan interest rates which, in turn, operated as a deterrent on savings and encouraged capital flight.
V.	Results	<ul style="list-style-type: none"> <li>- The number of private domestic and joint venture banks rose dramatically after 1988, resulting in intense competition to attract depositors and borrowers.</li> <li>- State-owned banks could not maintain their dominance as private banks offered higher deposit interest rates. The assets of private commercial banks increased from 12% in 1982 to 42% of total bank assets in 1994, while those of state-owned banks declined from 72% to 40% over the same period.</li> <li>- The share of joint-venture banks in total bank assets did not increase significantly between 1982 and 1984, since their expansion into branches and other activities was still limited by regulation. These banks were not permitted to compete in the retail market as they were expected to capture too large a share.</li> <li>- Between 1991 and 1993, bank expansion slowed down and many borrowers defaulted as real interest rates increased strongly.</li> <li>- By 1993, high real interest rates and a high proportion of non-performing loans plagued the banking system. Real interest rates reportedly increased as a result of expected currency devaluation and inappropriate banking supervision.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study explores various costs and benefits of financial deregulation in Indonesia.

I.	Publication	Tandon, Rameshwar P. (1996), "Japanese Financial Deregulation since 1984", <i>UNCTAD Discussion Paper</i> , No. 114, Geneva.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic Deregulation and Liberalization</i> of Japan's financial system as part of an agreement with the United States in 1984.</p> <ul style="list-style-type: none"> <li>- Capital flows were freed of most controls.</li> <li>- Restrictions on the purchase of foreign bonds were relaxed. This involved a removal of ceilings on foreign currency deposits held by residents and deregulation of impact loans in foreign currency.</li> <li>- Interest rates were liberalized.</li> <li>- Financial businesses were opened to non-financial firms.</li> </ul>
IV.	Rationale for Policy Reform	As Japan's role as a capital exporter grew, its regulated financial system proved inadequate. In the mid-1960s, a continuous current account surplus contributed to increasing foreign exchange reserves. Liberalization was expected to increase demand for domestic currency by allowing foreign firms access to Japanese capital markets.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Deregulation enabled a large number of firms to issue bonds, including convertible and warrant bonds.</li> <li>- Japan's share in international capital portfolio movements increased sharply. By the late 1980s, Japan's share in total capital outflows from industrial countries exceeded that of the United States and Europe combined.</li> <li>- Japanese investors and commercial banks significantly increased their foreign security holdings.</li> <li>- Removal of restrictions on the issuing of bonds generated a large secondary market in government bonds. This stimulated the growth of short-term money markets which are considered central to open market operations.</li> <li>- The combination of liberalized interest rates and increasing competition lowered bank profitability as from 1989. Despite stiffening competition, the share of small banks remained constant from 1980 to 1993.</li> <li>- International financial transactions are in some areas less regulated than domestic transactions. This has promoted significant growth in Japanese banks' overseas activities.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study suggests that liberalization and, more specifically, decreasing profitability in Japanese banks did not affect the structure of the banking sector.

I.	Publication	Velarde, Julio, and Rodriguez, Martha (1995), "Peru: Consolidating Financial Reform" in M. Basch and C. Morales (eds.), <i>Expanding Access to Financial Services in Latin America</i> , Inter-American Development Bank, Washington D.C.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Domestic deregulation and external liberalization</i> of Peru's financial sector in March 1991.</p> <ul style="list-style-type: none"> <li>- Trade liberalization and partial deregulation of factor markets went hand in hand with domestic financial deregulation and capital account liberalization. Interest rates were decontrolled.</li> <li>- The capital account of the balance of payments was completely liberalized. Restrictions on holding and selling foreign exchange were removed.</li> <li>- The Central Bank became autonomous and discontinued its lending to the state-owned development bank.</li> <li>- Regulatory and supervisory control was strengthened.</li> </ul>
IV.	Rationale for Policy Reform	The Peruvian financial system was adversely affected by macroeconomic instability, interest rate controls and high reserve requirements. Bank supervision and the regulatory and institutional framework were inadequate. The channelling of funds to development banks and the imposition of sectoral and regional loan portfolio quotas on private commercial banks distorted the allocation of funds. The financial system reached a state of crisis by July 1990.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Financial deepening intensified in 1993.</li> <li>- Rapid liquidity expansion based predominantly on an increase in financial savings rather than monetary expansion. While financial savings grew from 3.6% of GDP in 1990 to 9.8% in 1993, money supply (M1) increased from 1.9% to 2.0%.</li> <li>- The increase in financial savings was associated with the removal of interest rate controls, authorization of foreign currency deposits, and increased confidence of economic agents.</li> <li>- The rise in net financial income did not translate into improved bank profitability as the composition of loan portfolios deteriorated.</li> <li>- In 1993, commercial banks increased their reserves for bad debts which, in many cases, represented 10% of total loans. Banks reduced costs by closing offices and cutting staff.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional comments	The author emphasises the influence of macroeconomic policies on the performance of the financial sector and the effects of financial reform in Peru.

I.	Publication	Velasco, Andres (1992), "Liberalization, Crisis, Intervention: The Chilean Financial System, 1975-85", in V. Sundarajan and T.J.T. Balino (eds.), <i>Banking Crises: Cases and Issues</i> , Washington D.C.: International Monetary Fund.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p>- <i>Chile's Domestic Deregulation</i> in the early 1970s entailed privatization of banks, removal of interest rate ceilings, relaxation of regulations and greater integration into world capital markets.</p> <p>- <i>External liberalization</i> in April 1980 included the complete lifting of restrictions on international capital flows.</p> <p>- <i>Re-regulation</i> was introduced under the Banking Law of 1986.</p>
IV.	Rationale for Policy Reform	<p>Regulatory reform was aimed at increasing competition and promoting growth of the financial sector.</p> <p>At macroeconomic level, financial liberalization was supposed to stimulate overall economic expansion, increase savings and improve the quality of investment through market-based allocation. Financial reform was accompanied by stabilisation policies aimed at fighting hyperinflation during the early 1970s.</p>
V.	Results	<p>- Real interest rates were extraordinarily high, exceeding an annual average of 76% between 1975 and 1982. A substantial gap existed between lending and deposit rates.</p> <p>- Financial intermediation expanded as total financial assets rose from 19.7% of GNP in 1975 to 48.1% in 1982.</p> <p>- External debt grew rapidly, reflecting mainly foreign borrowing by the private sector. During the period 1978 to 1981, capital inflows exceeded current account deficits thus resulting in a build-up of international reserves. The accumulated debt of the non-governmental sector went up from 5.0% to 61.7% of GDP between 1974 and 1982.</p> <p>- In the absence of state supervision, banks increasingly made risky loans. By 1981, non-performing assets had increased dramatically as a percentage of bank capital and reserves.</p> <p>- A sudden decline in capital inflows coupled with a slump in asset prices (a result of bankruptcies) and a reversal of optimistic expectations, triggered the collapse of the financial system in 1982.</p> <p>- By 1983, most major commercial banks and financial companies were insolvent and taken over by the public sector.</p>
(a)	Sector-specific	
(b)	Economy-wide	<p>- Average savings in the liberalization period from 1974 to 1983 did not change significantly relative to other periods. (The interest elasticity of savings is likely to be small in developing countries like Chile).</p>



	<p>- Private sector investment increased sharply, but was offset by a decrease in public investment; average gross fixed investment as a percentage of GDP was only marginally higher than in the pre-liberalization period.</p> <p>- In 1983, the economy plunged into recession due inter alia to a collapse in export prices. High interest rates following financial deregulation further weakened the financial status of enterprises and deepened the recession.</p>
(c) Consumer Welfare	No comment
VI. Additional Comments	<p>The paper addresses the implications of financial liberalization in a general equilibrium framework, discussing the possibility that financial sector instability contributes to macroeconomic disequilibria and vice versa.</p> <p>The author attributes the Chilean crisis primarily to excessive growth and profit expectations and faulty assessment of economic agents. He considers Chile's financial sector reforms to be inadequate as they did not address possible market imperfections and failed to encourage competition.</p>

I.	Publication	Velázquez, Efraín (1990), "El proceso de asignación de recursos financieros en Venezuela", in Carlos Massad and Günter Held (eds.), <i>Sistema financiero y asignación de recursos</i> , Buenos Aires.
II.	Sector	Financial Services: Banking
III.	Policy Change	Between 1981 and 1984, interest rates were deregulated; in 1985 guarantees for deposits were introduced. Many private banks were nationalized.
IV.	Rationale for Policy Reform	Fixed nominal interest rates, combined with growing inflation, resulted in negative real interest rates and capital outflows by the beginning of the 1980s.
V.	Results	
(a)	Sector-specific	Venezuela's financial institutions remained strongly specialized; there was only little financial deepening.
(b)	Economy-wide	<p>- Real interest rates rose sharply between 1982 and 1984. However, under the fixed exchange rate system, growing inflation led to expectations of significant devaluation. Capital outflows thus continued.</p> <p>- As the economy went through recession, interest rates were re-regulated.</p>
(c)	Consumer Welfare	No comment

I.	Publication	Vos, Rob (1997), "Financial Reform, Institutions and Macroeconomic Adjustment: the Destabilizing Effects of Financial Liberalization in the Philippines, 1970 to 1992", in K.L. Gupta (ed.) <i>Experiences with Financial Liberalization</i> , Massachusetts.
II.	Sector	Financial Services: Banking
III.	Policy Change	<i>Domestic deregulation</i> of the Philippine financial sector in 1973 and the early 1980s. While credit rationing regulations remained unaltered, interest rate ceilings were removed in the early 1980s.
IV.	Rationale for Policy Reform	Institutional problems, weak competition and depressed rates of return on assets in the financial market constrained credit availability and, by implication, investment spending until the 1970s. Many financial institutions relied on foreign borrowing in the 1970s to increase their domestic lending capacity. The financial system consequently became more vulnerable to external shocks and underwent three major crises since 1970.
V.	Results	<ul style="list-style-type: none"> <li>- Despite interest rate liberalization in the early 1980s, financial savings remained stagnant.</li> <li>- Indicators point to slow financial sector growth; the level of currency plus financial savings relative to GNP (M3/GNP) remained relatively stable since the 1980s. The economic crisis of the 1980s as well as a weak response of household savings to higher interest rates undermined the mobilization of private savings. Deregulation thus failed to promote financial deepening. While interest-rate ceilings were removed, the functioning of financial markets continued to suffer from inflexible pricing policies of banks and the persistence of credit-rationing practices.</li> <li>- Bank concentration increased after deregulation with the five largest banks owning 52% of the total assets of the commercial banking system in 1991, compared to 30% in 1980. Many banks merged in order to cope with external shocks (rising world interest rates) and a significant volume of non-performing loans. The author holds that deregulation-related increases in interest rates precipitated the increase in concentration.</li> <li>- Rising interest rates in combination with external shocks eventually triggered a financial crisis.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	No comment
VI.	Additional Comments	Financial liberalization failed to produce the envisaged results. The author pins the blame especially on an underdeveloped and fragile financial system, unstable macroeconomic conditions and weak banking supervision. He feels that the reforms might have exacerbated weaknesses in the system, associating the increase in bank concentration with a decrease in competition. (On the other hand it might be argued that regulatory inertia continued to hinder price-based credit allocation and deter market entrants.)
		The financial system was under considerable stress when reforms were undertaken. Most firms, which had accumulated large debts under low real interest rates, were seriously affected by the removal ceilings. Moreover, cross-ownership links had increased the system's vulnerability to individual bank failures.

I.	Publication	Williams, Marion V. (1996), <i>Liberalising a regulated banking system: the Caribbean case</i> , Aldershot.
II.	Sector	Financial Services: Banking
III.	Policy Change	<p><i>Easing of bank regulation</i> in Jamaica and Trinidad and Tobago since 1985 was coupled with monetary liberalization and freeing of the exchange rate.</p> <p><i>Complete external liberalization</i> of the financial system in Jamaica in 1991 coincided with a significant reduction of interest rate controls and a complete removal of credit controls.</p> <p>Barbados, by contrast, still retained strict regulation until the end of 1992; high reserve requirements remained in place while interest rates were partially liberalized and credit controls removed.</p>
IV.	Rationale for Policy Reform	High reserve requirements, regulated credit and interest rate controls had an adverse impact on the costs of financial intermediation. Regulation contributed to decreasing the share of banks relative to non-banks in the financial market, leading to a decline in financial intermediation in all three countries.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Bank profitability increased during periods of less intense regulation or increasing deregulation.</li> <li>- Reserve requirements and bank solvency were found to be negatively correlated in Jamaica and positively in Barbados, Trinidad and Tobago.</li> <li>- Banks in countries without foreign competition were found to have higher gross profit margins than banks in countries allowing for foreign entry.</li> </ul>
(b)	Economy-wide	Complete liberalization of the Jamaican markets in early 1991 was accompanied by further devaluation and growing inflation.
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study concentrates more on the costs of regulation rather than the benefits from deregulation for the Caribbean banking industry. The author maintains that liberalization yields poorer results in countries with underdeveloped capital markets and non-existent economies of scale than in advanced large economies.

I. Publication	Zuleta, Luis Alberto (1990), "Estructura del proyecto de credito para la inversión en Colombia", in Carlos Massad and Günter Held (eds.), <i>Sistema financiero y asignación de recursos</i> , Buenos Aires.
II. Sector	Financial Services: Banking
III. Policy Change	<p>- Up to the early 1980s, Colombia's credit policy was determined by the Central Bank; interest rates were regulated and credits were allocated to strategic sectors. Prudential regulation and supervision were almost absent.</p> <p>- In 1982, prudential rules and supervision mechanisms were adopted. In 1983, interest rates in the private financial sector were deregulated. Rates for public loans, although still regulated, started hovering around the market rates.</p> <p>- From 1986, the Government increasingly issued bonds to finance expenditure. Reserve requirements continued to be used as instruments of monetary policy.</p>
IV. Rationale for Policy Reform	<p>Rising inflation in the 1970s hindered the development of a market for long- and medium-term investment loans. The financial sector was seen to be unable to promote domestic savings and effectively direct them towards investment.</p> <p>Excessive reliance of monetary policy on minimum reserve requirements also affected financial sector growth.</p> <p>Lack of prudential regulation and inadequate prudential supervision resulted in a financial crisis in 1982. Many banks were temporarily nationalized.</p>
V. Results	
(a) Sector-specific	The volume of medium and long term loans started to grow slightly after 1983. However, depositors continued to prefer short-term accounts.
(b) Economy-wide	No comment
(c) Consumer Welfare	No comment
VI. Additional Comments	Important new measures were taken after the publication of this article. Among others, at the beginning of the 1990s, a system of managed currency floating was adopted; the Central Bank was established as an autonomous monetary authority; banks were privatized; and foreign investment in the financial sector was allowed.

## B. TELECOMMUNICATIONS

I.	Publication	Abdala, Manuel A. (1992), "Desregulación, privatización y regulación del sector argentino de las telecomunicaciones", <i>Estudios</i> , No. 63 (Instituto de Estudios Económicos sobre la realidad Argentina y Latinoamericana).
II.	Sector	Telecommunications
III.	Policy Change	<p>- In 1990 ENTEL, the State-owned monopoly supplier, was privatized. In this context, the company was split into four units: two operate regional networks; one provides long-distance services; and one specializes in competitive services such as telex and data transmission.</p> <p>- A regulator, created in 1990, remained basically inactive until 1992. Regulatory requirements, including quality-related provisions and price structures, were included in the privatization contracts. Compliance was a precondition for maintaining the operators' respective monopoly status which was granted for seven years with a possible three-year extension. The extension was made contingent on certain performance criteria.</p> <p>- Exclusivity for mobile telephony was granted in exchange for some price reductions which were renegotiated in 1992.</p>
IV.	Rationale for Policy Reform	Hyperinflation and deep recession in 1989 inspired substantial public sector reforms. ENTEL was chosen as a pilot privatization project.
V.	Results	- Immediately after privatization, average telecommunication tariffs increased by over 96%.
(a)	Sector-specific	<p>- Labour productivity was extremely low before privatization. There were less than 78 lines per worker in service in 1990 as compared to 250 lines in the U.S., 172 in France and 102 in Great Britain. After privatization, total employment was reduced by 11.9% and the working week increased from 35 to 40 hours as in the rest of the economy.</p> <p>- Sub-suppliers changed. While ENTEL was previously committed to a buy-national policy, it switched to commercial criteria.</p>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Privatization revealed a tension between the Government's fiscal interest in high tariffs (and thus in high transfers from the monopoly operators) and user interests. The author feels that the fiscal objective prevailed; the negotiated prices proved very controversial in Argentina. While praising the efficiency effects of privatization, he stresses the need for more active regulatory supervision.

I.	Publication	Cave, Martin (1995), "Development of the UK telecommunications industry through privatization and deregulation", Discussion Paper No. 60, Economic Research Institute, Economic Planning Agency, Tokyo.
II.	Sector	Telecommunications
III.	Policy Change	<p><i>Privatisation</i> of the telecommunications industry in the United Kingdom in the early 1980s. The regulatory regime distinguished between network operation and service provision. Network operation was restricted to a duopoly while competition amongst service providers was encouraged.</p> <ul style="list-style-type: none"> <li>- In 1984, the British government sold half of British Telecommunication's (BT) shares as part of its privatisation policy. By 1993, it had sold its remaining stake in BT.</li> <li>- Between 1983 and 1991, the UK telecommunications industry was restricted to a duopoly, comprising BT and Mercury. After 1991, most barriers to entry the domestic market were removed.</li> <li>- Licences were issued to several mobile service providers through the 1980s. By 1995, 62 licences had been granted to telecommunications enterprises operating in the domestic market. In international telephony, however, the existing duopoly of international operators was maintained.</li> <li>- Price control was tightened with the introduction of "price cap regulations" since 1984.</li> </ul>
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Despite the rapid increase in the number of telephone lines provided by cable operators, BT remained dominant in the market as a whole, accounting for 97% of exchange lines in 1994 and 87% of call revenues.</li> <li>- Over the period 1989 to 1994, BT's total factor productivity grew at an annual rate of 7.2%.</li> <li>- After privatisation, BT doubled its investment level and maintained a significant rate of return on capital.</li> <li>- The weighted average real cost of all services provided by BT declined by about 40%.</li> <li>- BT faced substantial competition in international as against local markets. Charges for international calls declined more than those for local calls.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	<ul style="list-style-type: none"> <li>- Both BT and Mercury improved their quality of service, reflected in a reduction of local call failures and improvements in fault repair services.</li> <li>- The tightening of price cap regulations together with the entry of competitors significantly undercutting BT's prices led to large consumer savings.</li> </ul>

	<p>- The main beneficiaries were businesses rather than households. However, the pass-on effects of lower input prices also benefited final consumers.</p>
VI. Additional Comments	<p>The author cautions against attributing all price and quality changes to privatisation or increased competition. Since the early 1980s, the telecommunication sector has also benefited significantly from technological developments associated with digitalization and the introduction of fibre optics.</p> <p>The study argues that price cap regulations, accompanied by increased competition, can help to reduce prices, align them more closely with actual cost, and enhance productivity.</p>



I.	Publication	Imai, Hiroyuki (1994), "Assessing the gains from deregulation in Japan's international telecommunications industry", <i>Journal Of Asian Economics</i> , No.3.
II.	Sector	Telecommunications
III.	Policy Change	<ul style="list-style-type: none"> <li>- Opening of the Japanese telecommunications market to private competition.</li> <li>- Privatisation of Nippon Telegraph and Telephone Public Corporation (NTT), a monopoly producer of domestic telecommunication services.</li> <li>- Termination of Kokusai Denshin Denwa's (KDD) monopoly on international telecommunications services.</li> </ul>
IV.	Rationale for Policy Reform	Reduction of Japan's large budget deficits in the aftermath of the 1973 oil embargo through the expansion of private businesses. The positive budgetary impact of privatisation led the government to review the effects of regulation and the role of government-owned corporations.
V.	Results	
(a)	Sector-specific	<p><i>Short-run implications:</i></p> <ul style="list-style-type: none"> <li>- In order to defend its market share, KDD intensified cost reduction efforts and launched a series of sharp rate reductions. KDD's profitability declined.</li> </ul> <p><i>Long-run implications:</i></p> <ul style="list-style-type: none"> <li>- Deregulation brought about a rapid rise in total factor productivity and a corresponding 22.2% fall in KDD's unit cost over the period from 1985 to 1992. The average call rate in the market declined proportionally to KDD's rate owing to the company's market dominance.</li> <li>- Entry of two new carriers in 1989 whose combined share in the international telephone market reached 29% by 1992.</li> <li>- The directional rate disparity between the United States and Japan narrowed substantially by the end of 1993, with a three-minute call from the U.S. through ATT costing ¥613 compared to ¥670 yen through KDD.</li> <li>- As a result of significant rate reductions, the volume of international calls increased rapidly. The annual growth rate of Japan's international telecommunications industry is estimated at 27.6% for the 1984-1992 period.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	<ul style="list-style-type: none"> <li>- The efficiency gains reflected in the fall in KDD's unit costs led to lower rates for international phone calls. KDD's standard 3 minute call rates to the U.S., for instance, fell from ¥1,680 in 1985 to ¥670 at the end of 1993.</li> <li>- The corresponding consumer gains amounted to 25.6% of total international telephone call revenues in 1992.</li> </ul>
VI.	Additional Comments	The paper highlights the efficiency gains and welfare effects associated with enhanced competition in the telecom sector. It does not address the impact, if any, on related sectors or on the budget whose imbalance provided the initial incentive to deregulate.

I.	Publication	Majumdar, Sumit K. (1992), "Performance in the US telecommunications services industry: an analysis of the impact of deregulation", <i>Telecommunications Policy</i> , No. 4.
II.	Sector	Telecommunications
III.	Policy Change	<i>Domestic deregulation</i> in the U.S. telecommunications sector during the period 1984-87.
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Average profitability of carriers rose in 1984 relative to 1981 and then fell by 1987. The profitability decline reflected the increase in competition.</li> <li>- Productivity of firms increased constantly throughout the period 1981 to 1987.</li> <li>- Competitive pressures from new entrants into the industry induced incumbent firms to reduce their prices between 1984 and 1987.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The study provides an overview of the impact of deregulation on various performance indicators of major U.S. carriers.

C. AIR TRANSPORT

I.	Publication	Baltagi, Badi H.; Griffin, James M. and Rich, Daniel P. (1995), "Airline Deregulation: The Cost Pieces of the Puzzle", <i>International Economic Review</i> , Vol. 36, No.1.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	An increase in fuel costs and a decrease in load factors (revenue passenger miles divided by available seat miles) resulted in a significant rise in airfares in the mid-1970s.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Average load factors rose from 56% (1975) to 62% (1992).</li> <li>- Deregulation affected airline ticket prices in the following ways: (i) Direct reductions from increased competition; (ii) indirect reductions from lower average costs; and (iii) price pressure due to the elimination of local service subsidies. In sum, airfares under deregulation were estimated to have decreased by 18%.</li> <li>- Lower airfares led to a significant increase in aggregate output. On the other hand, airlines were free after deregulation to increase the frequency of flights between city-pair markets. The resulting increase in traffic enabled firms to significantly reduce costs.</li> <li>- Improvements in load factors and more efficient route structures due to hubbing further helped to reduce costs. Another source of cost-savings was the fall in average real wages due to absence of unionisation in new companies. Total cost-savings attributable to deregulation are estimated at 9.3% for trunk airlines and 19.9% for non-trunk airlines.</li> <li>- Over the 1971-86 period, fuel-efficient aircraft were put into service. Output growth and more efficient route structures in the post-deregulation period allowed for the use of wide-bodied aircraft.</li> <li>- The rate of pure technical change in the airline industry is estimated to have declined from 4.6% to 3.4% annually after deregulation. This has been attributed to slower introduction of more fuel efficient aircraft and slower relative improvements in load factors.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Airfares fell significantly after deregulation.
VI.	Additional Comments	The paper analyses the factors supposed to have led to significant cost-reductions in the wake of deregulation.

I.	Publication	Borenstein, Severin (1992), "The evolution of U.S. airline competition", <i>The Journal of Economic Perspectives</i> , Volume 6, No.2.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic Deregulation</i> - The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	Deregulation was expected to improve consumer welfare.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- New entry resulted in substantial price reductions on most routes.</li> <li>- Airline profits increased significantly in 1978 but declined rapidly after the oil-shock.</li> <li>- Due to recession, entry of new airlines came to a near halt by 1983. New entrants either merged with major carriers or ceased operation.</li> <li>- Business concentration increased between 1982 and 1990, implying a decrease in competition, at the national level. Hub and spoke operations expanded.</li> <li>- Competition at the route level, however, increased substantially between 1984 and 1987.</li> <li>- Hub operations enhanced the efficiency of airline operations but exacerbated congestion at major airports.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	<p>The hub and spoke system resulted in the following benefits:</p> <ul style="list-style-type: none"> <li>- Decrease in the proportion of passengers who needed to change airlines or planes during their trip;</li> <li>- greater choice of departure times for most travels between non-hub airports; and</li> <li>- increased use of marketing strategies such as frequent flyer programmes and special discounts.</li> </ul>
VI.	Additional Comments	The study deals with a range of possible policy responses to declining competition in the airline industry. The author expresses concern about the implications of anti-competitive marketing devices on the industry. Opening markets to foreign competition, discouraging marketing strategies like frequent-flyer programmes and requiring airlines to pay flat and equal commission rates to all travel agents are among the measures considered to enhance competition.

I.	Publication	Bowen, John T. and Leinbach, Thomas R. (1996), "Development and liberalization: the airline industry in ASEAN", in G.C. Hufbauer and C. Findlay (eds.), <i>Flying High: Liberalizing Civil Aviation in the Asia Pacific</i> , Institute for International Economics, Washington D.C.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Policy Reform</i> in ASEAN countries since the mid-1980s. - All ASEAN countries partially privatised their state-owned flag carriers. Although four major South-East Asian carriers (Thai Airways International, Singapore Airlines, Malaysian Airlines and Philippine Airlines) were privatised, the State retained a substantial equity share. Governments continued to control domestic fares.
IV.	Rationale for Policy Reform	An efficient domestic and international transport network was considered a prerequisite for export growth in South-East Asia. Export-orientated industrialisation policies generated a need for strong and efficient air links to foreign markets. Deregulation and privatisation were also expected to enable domestic carriers to compete successfully on a global scale.
V.	Results	
(a)	Sector-specific	The increase in competition resulting from the entry of foreign carriers helped to enhance the efficiency of flag carriers and other domestic carriers.
(b)	Economy-wide	The author suggests that denser transport networks encouraged foreign investment in Asian countries. New aviation links promoted trade and commercial ties.
(c)	Consumer Welfare	Movement of goods and people became faster and cheaper. A larger number of flights became available to a wider range of destinations.

I.	Publication	Button, Kenneth J. (1996), "Aviation Deregulation in the European Union: Do Actors Learn in the Regulation Game?", <i>Contemporary Economic Policy</i> , No.1.
II.	Sector	Transport: Aviation
III.	Policy Change	<p>- <i>Domestic reforms</i> increased flexibility in allocating licences and setting fares and, as in the UK, allowed for the privatisation of state-owned companies.</p> <p>- <i>Liberalization of bilateral agreements</i>, although not widespread, encouraged new entries and required incumbents to adjust.</p> <p>- <i>"Open Skies" agreements</i> were concluded between individual EU Member States and the United States.</p> <p>- <i>EU Aviation Policy</i>: Since January 1993, any EU airline has been able to fly between Member States without restriction and within other Member States subject to some controls on fares and capacity. From 1997, full cabotage is permitted and fares are unregulated except in a few pre-defined cases.</p>
IV.	Results	
(a)	Sector-specific	According to the author, the nature of the EU market - with diverging national policy interests, airport capacity limitations, air traffic constraints and a legacy of established routes and networks - suggests that incumbents will make entry extremely difficult. The resulting structure is likely to resemble an oligopoly.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
V.	Additional Comments	Policy changes in the EU focused on liberalization rather than on U.S.-type deregulation. The paper discusses how conditions in the EU differ from the United States implying that the U.S. lesson can have only limited relevance.

I.	Publication	Button, Kenneth J. (1993), "International interdependencies between the deregulation of domestic service industries: a case study of aviation in North America", <i>The Service Industries Journal</i> , No. 3.
II.	Sector	Transport: Aviation
III.	Policy Change	<p>United States: <i>Domestic deregulation</i></p> <p>- The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.</p> <p>An "<i>Open Skies</i>" policy involved more liberal provisions in international bilateral agreements on prices and capacity.</p> <p>Canada: <i>Domestic deregulation</i></p> <p>Regulations were relaxed with the passage of the 'New Canadian Air Policy' of 1984; domestic deregulation was based on the 'National Transportation Act' of 1987.</p> <p>Agreements with the U.S. enhanced trans-border competition.</p>
IV.	Rationale for Policy Reform	<p>Empirical studies illustrated the imperfections implicit in the regulatory system. The efficiency gains ensuing from the liberalization of several U.S. utilities in the early 1970s and of the U.S. trucking industry in 1968 testified to the benefits of reform.</p> <p>The author maintains that Canada's dependence on the U.S. market, which offered trans-continental passengers the benefits of frequent flights and cheaper fares, was an important determinant of Canada's deregulation policy.</p>
V.	Results	<u>United States</u>
(a)	Sector-specific	<p>- A firmly established pattern of hub-and-spoke operations was dominated by a few large suppliers. Hubbing enabled airlines to increase load factors, lower costs and thereby decrease fares.</p> <p>- Between 1978 and 1988, the number of passengers increased by 88%, scheduled revenue passenger miles by almost 62% and available seat miles by nearly 65% over 1976.</p> <p>- In order to deter new entrants in the industry, dominant airlines invested heavily in Computer Reservation Systems (CRS), which provided travel agents with information on fares and seat availability and enabled direct booking.</p> <p>- Both the hub-and-spoke system and CRS conferred strategic advantages on larger firms and, thus, helped to increase the level of business concentration in the industry.</p> <p><u>Canada</u></p> <p>- Deregulation resulted in an increase in competition.</p> <p>- The New Canadian Air Policy of 1984 led to several mergers and acquisitions and, eventually, to a duopoly in 1989 (Air Canada and CAIL).</p>
(b)	Economy-wide	No comment

(c) Consumer Welfare	<ul style="list-style-type: none"><li>- A decline in real fares per passenger mile and a significant increase in the availability of discounted tickets in both Canada and the U.S.</li><li>- The hub-and-spoke system increased the range of routing options as well as the choice of airlines.</li><li>- The reforms were not reported to have led to lower safety levels.</li></ul>
VI. Additional Comments	The study argues that the post-deregulation increase in concentration in the U.S. aviation industry did not offer dominant airlines monopolistic pricing opportunities owing to their control over hubs. Competition between hubs effectively operated as a constraint.



I.	Publication	Card, David E. (1996), Deregulation and labour earnings in the airline industry, Working Paper Series, National Bureau of Economic Research, Cambridge, MA.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	Previous regulation in the U.S. airline industry is claimed to have led to rent-seeking and operating inefficiency. Deregulation was, in principle, expected to shift cost functions downward and result in increased output, lower retail prices and more efficient resource allocation.
V.	Results	<ul style="list-style-type: none"> <li>- The number of U.S. airline firms tripled as a result of deregulation. However, open competition coincided with the oil-shock and the ensuing surge in energy prices. By 1985, several airline firms had ceased operation.</li> <li>- Wages declined in the early 1980s owing to the simultaneous impact of competition and recession. Some firms negotiated wage cuts with unionised workers. The post-deregulation decline in wages is attributed to the elimination of a regulatory rent premium. Overall, however, real wages declined by the same magnitude as economy-wide average wages from 1979 to 1994 .</li> <li>- Airline workers, generally better educated, had less difficulties in finding new employment than other displaced workers. However, the wages of workers leaving the industry did not differ significantly from those of newly employed workers.</li> <li>- The creation of hub-and-spoke networks led to increasing returns and a significant rise in business concentration. While deregulation had eliminated the primary sources of rents in the airline industry, concentration created other rent elements. Therefore, although wages in some firms declined to competitive levels, other firms were able to pay far more. Inter-firm wage dispersion increased.</li> <li>- Airline industry employment expanded faster in the post-deregulation period.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The paper discusses how downward pressure on wages resulted not only from recession, but from the need to cut costs due to an increase in competition following deregulation. Airline regulation and a high rate of union representation in the industry had driven wages far above "competitive" levels. However, the study was not able to establish a clear relationship between deregulation and the general wage level in the industry.

I.	Publication	Dempsey, Paul S., and Goek, Andrew R. (1992), <i>Airline Deregulation and Laissez-Faire Mythology</i> , Westport, Conn.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> of the airline industry in the United States. The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	Domestic deregulation was seen as crucial to enhancing competition and efficiency in the industry. It was based on the assumption that there were no significant economies of scale or other cost-related entry or exit barriers in the airline industry.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- The removal of entry regulation led to intense competition and eventually to mergers among airlines. Contrary to prior assumptions, this was indicative of the existence of economies of size (scope, scale and density) in the industry.</li> <li>- According to the authors, deregulation led to cutthroat pricing. Dwindling profitability affected the industry's ability to reequip aging fleets and maintain the quality of service.</li> <li>- Over the first 11 years of deregulation, average net profits amounted to 0.7% as compared with 4.5% for other US industries.</li> <li>- More than 120 airlines entered the industry after deregulation, but more than 200 went bankrupt over the following years. After 50-odd mergers and acquisitions, only 74 carriers remained in business. While the eight largest carriers had commanded 81% of the domestic market in 1978, their share increased to 95% by 1991.</li> <li>- The hub-and-spoke method of operation was increasingly used as a result of competitive pressures. All but three hubs were dominated by a single airline accounting for more than 60% of take-offs, gates and passengers.</li> <li>- The authors draw a direct link between the removal of entry and exit regulations and increasing traffic concentration on hub airports.</li> <li>- Available evidence points to a decline in the overall number of monopoly markets since deregulation. However, the study holds that, confounding pre-deregulation scenarios, <i>unregulated</i> monopolies were able to charge excessively high prices and extract monopoly profits.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	- In 1988, average fares at 15 concentrated hub airports were found to be 27% higher than those at 38 unconcentrated airports. The dominant carrier in almost all concentrated hub airports charged higher fares than other carriers.

	<ul style="list-style-type: none"> <li>- Service from and to small towns was often reduced to one airline.</li> <li>- Average inflation-adjusted fares declined by 13% over the period 1978 to 1988. However, holding fuel prices constant, the real price of air travel fell more rapidly in the period before deregulation than after deregulation.</li> <li>- The increase in the number of flight departures meant more frequent non-stop services from hubs. However, hub airports experienced congestion, delays and an increase in noise pollution.</li> <li>- As a result of hub-and-spoke connections, travellers had to spend more time in both aircraft and airports.</li> <li>- Air travel became more expensive for passengers beginning or ending their journey at a hub as compared to those who connected at a hub.</li> </ul>
VI. Additional Comments	<p>The study concludes that the increase in business concentration in the U.S. aviation industry reflected the existence of economies of size (scale, scope and density). The authors point out a strong correlation between the rise in business concentration and the increase in airfares, arguing that a more concentrated industry was able to charge excessively high prices.</p> <p>The study provides evidence of barriers to entry such as incumbent carriers' dominance of hubs, computer reservation systems, and frequent flyer programs that might have undermined market contestability and contributed to the pricing power of incumbent firms.</p>

I.	Publication	Edelman, Richard B., and Baker, H. Kent (1996), "The Impact of Implementing the Airline Deregulation Act on Stock Returns", <i>Journal of Economics and Finance</i> , Volume 20, No. 1.
II.	Sector	Transport: Aviation
III.	Policy Change	<p><i>Domestic deregulation</i></p> <ul style="list-style-type: none"> <li>- The U.S. Airline Deregulation Act of 1978 phased out four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry by 1985.</li> <li>- Airlines were free to determine their domestic routes and schedules, beginning 31 December 1981, and were able to set their domestic fares and compete on prices from 1 January 1983.</li> </ul>
IV.	Rationale for Policy Reform	The CAB's protection against price competition and the existing barriers to entry created a monopolistic structure in the industry, leading to fares in excess of competitive levels and idle capacity.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Price and entry competition prompted a decline in fares and an increase in demand.</li> <li>- Some airlines made financial losses after deregulation as they relied on business expansion rather than on cutting costs and raising productivity. For instance, Continental, PanAm, Midway and Trans World Airlines went bankrupt in the early 1990s.</li> <li>- Airlines' stock returns fell as a result of adjustment and restructuring costs.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Consumers benefitted from lower fares and a wider choice of routes and flights.

I.	Publication	Evans, William, and Kessides, Ioannis (1993), "Structure, Conduct and Performance in the Deregulated Airline Industry", <i>Southern Economic Journal</i> , No. 3.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic Deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry.
IV.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Hub-and-spoke operations and complex pricing schemes proliferated;</li> <li>- airports were dominated by single carriers;</li> <li>- computer reservation systems increased in importance;</li> <li>- loyalty-inducing devices such as frequent-flyer programs and special commission arrangements with travel agents were introduced.</li> </ul> <p>The hub-and-spoke system, resulting in increased load factors on route segments, helped to reduce operating costs as costs per passenger mile fell with increasing traffic density. The system led to business concentration at many hub airports. Dominant carriers tended to receive significantly higher prices on trips beginning or ending at the hub. (Dominant firms account for over 50% of the passenger boardings in 9 out of the top 25 airports).</p> <p>The hub-and-spoke method and the merger wave of the 1980s has greatly expanded airline networks; however, mergers of airlines with complementary air-routes have dampened competition. Besides, fares have been higher on routes serviced by carriers with extensive inter-route contacts. Consumers were given choice of airlines at any given route.</p>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Deregulation has enabled airlines to reduce operating cost, raise load factors, increase the availability of discount tickets and expand the number of flights without significantly affecting the quality of service and safety.
V.	Additional Comments	The paper provides insights into unintended effects of airline deregulation, indicating that most of the benefits have come at some cost.

I.	Publication	Formby, M. John P. <i>et al.</i> (1990), "Costs under regulation and deregulation: the case of US passenger airlines", <i>The Economic Record</i> , No. 195.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry.
IV.	Rationale for Policy Reform	Regulation is claimed to have led to excessive rent-seeking, expense padding and X-inefficiency. Non-price competition prompted firms to increase the cost of operation through higher levels of service quality. Deregulation was, in principle, expected to shift cost functions downward and result in increased output, lower retail prices and more efficient resource allocation.
V. (a)	Results Sector-specific	<p><i>Short-run implications:</i></p> <ul style="list-style-type: none"> <li>- Total costs increased by nearly 60% between 1976-77 and 1984-85 for reasons which were mostly unrelated to the airline industry and deregulation. These included higher interest rates and large increases in the prices of labour, fuel and equipment.</li> <li>- Over the same period, significant price competition among airlines led to a 60% rise in passenger output and a 10% rise in freight. Increases in output led to higher total costs.</li> </ul> <p><i>Long-run implications:</i></p> <ul style="list-style-type: none"> <li>- Changes in factor prices and factor productivity led to cost decreases for most airlines. While in the short run the productivity-related cost reduction was 6.5%, it amounted to 13.5% in the long run.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment

I.	Publication	Kennet, David M. (1993), "Did deregulation affect aircraft engine maintenance? An empirical policy analysis", <i>The Rand Journal of Economics</i> , No. 4.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry.
IV.	Results	
(a)	Sector-specific	- The number of engine hours between major workshop overhauls increased significantly in the period following deregulation. This suggests that airlines responded to competitive pressures by optimizing scheduled service times. Controlling for improvements via model upgrades in engines and similar factors, deregulation seems to have reduced the probability of engine checks and overhauls.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Aggregate safety did not decline following deregulation as there is no evidence of reduced engine reliability as measured by in-flight shutdowns.
V.	Additional Comments	During the regulated era, airlines competed in quality rather than price. Deregulation did not, however, significantly affect safety.

I.	Publication	Nijkamp, Peter (1996), "Liberalization of Air Transport in Europe: The Survival of the Fittest?" <i>Schweizerische Zeitschrift für Volkswirtschaft und Statistik</i> , Vol. 132, No. 3.
II.	Sector	Transport: Aviation
III.	Policy Change	<p>United States: <i>Domestic deregulation</i></p> <p>- The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.</p> <p>European Union: <i>Domestic Deregulation</i></p> <p>Deregulation initiatives came into effect on 1 January 1988 as part of a gradual reform process to be completed by 1997.</p>
IV.	Rationale for Policy Reform	European airline deregulation was aimed at creating a unified market and, thus, promoting competition and growth. The sector was expected to improve its financial viability and stability.
V.	Results	<u>United States</u>
(a)	Sector-specific	<p>- The post-deregulation rise in competition increased efficiency and lowered costs, thus leading to reduced fares and higher demand.</p> <p>- The number of routes and the frequency of service increased. However, this was accompanied by a rise in air and airport congestion.</p> <p>- The inability of many airlines to compete effectively led to an oligopolistic industry structure. The surviving firms were large and owed their dominance to the use of extensive hub-and-spoke networks and marketing devices like frequent flyer programmes, codesharing and computer reservation systems (CRS).</p> <p><u>European Union</u></p> <p>- Airfares did not decrease significantly.</p> <p>- Several regulations with an adverse impact on efficiency and costs remained in place.</p>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	In the United States, travellers could choose from a wider range of price/quality combinations on most routes.
VI.	Additional Comments	The study analyses the determinants of post-deregulation business concentration. The role of marketing strategies such as CRS and frequent flyer programmes as barriers to entry in the industry may warrant further discussion. The study concludes that it was easier for the U.S. than the European Union to undertake regulatory reform.



I.	Publication	Obermann, Stefan (1992), Deregulierung und dynamischer Wettbewerb - das Beispiel des US Luftverkehrsmarktes, <i>List Forum für Wirtschafts- und Finanzpolitik</i> , No. 1.
II.	Sector	Transport: Aviation
III.	Policy Change	Progressive liberalization of prices, traffic routes and market entry in the U.S. air transport sector.
IV.	Rationale for Policy Reform	<p>The increasingly open business environment provided under the 1978 Airline Deregulation Act enabled the individual carriers to strengthen their company profiles. They were increasingly free to use strategic parameters - including product, process and institutional innovation - to position themselves in a more competitive market.</p> <p>The study explores the relationship between competition and the carriers' business performance against the backdrop of two conflicting hypotheses: while <i>enhanced market contestability</i> can be expected gradually to narrow profit margins among participants, the <i>theory of dynamic competition</i> suggests that industrial diversity and, therefore, profit dispersion might grow in a more open environment.</p>
V.	Results	
(a)	Sector-specific	The study finds that over the period 1970 to 1984, the dispersion in profitability (return on turnover) among 16 larger U.S. carriers actually increased. Enhanced market contestability thus did not apparently translate into greater uniformity of business behaviour and results. The aggregate figures seem to mask significant changes in the individual carriers' relative profitability and, thus, their ranking over the research period.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Positive welfare implications resulting from both increased price competition and wider choice.
VI.	Additional Comments	The study emphasises that the consumer benefits to be expected from air transport deregulation are not limited to lower airfares, but include a widening range of competing price-quality combinations and, thus, better market response to individual preferences.

I.	Publication	Peoples, James H. (1991), "Airline deregulation and industry wage levels", <i>Eastern Economic Journal</i> , No. 1.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	In the 1970s, airline workers' wages exceeded the national average owing to weak competition between carriers and high levels of union participation. Deregulation was expected to reduce profits and market shares of high-priced carriers, thus diminishing the possibility of "excessive" labour costs being passed on to consumers.
V.	Results	<p>- The entry of non-unionized competitors after deregulation led to a decline in airfares. The average profit margin of major domestic carriers fell from 15.23% in 1978 to 4.86% in 1982.</p> <p>- Average airline wages after deregulation still exceeded the national average wage. The author attributes this to the airline industry's employment of generally qualified workers with higher levels of education and better socio-economic conditions. Moreover, the industry continued to be highly concentrated after deregulation, with a large share of organized labour.</p> <p>- However, wage levels did not exceed wages in industries with similar labour and product market structures. The study points to the absence of industry-wide labour contracts and the federal governments' diminished tolerance towards strikes by air traffic controllers.</p>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	No comment
VI.	Additional Comments	This paper discusses how high levels of education and professional qualification in a sector might prevent wages from falling relative to the rest of the economy.

I.	Publication	Phu, Son Hoa (1991), The effects of US airline deregulation on public intercity passenger travel demand: an econometrics analysis, (Ph.D. dissertation), University of Oklahoma, Ann Arbor, Michigan.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> of the airline industry in the United States. The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	No comment
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- Average deregulated airfares were found to be 34% lower than regulated airfares.</li> <li>- Airfare reduction resulted in an increase in the average distance of airline travel. The increase in travellers' purchasing power also led to additional demand for bus and rail travel.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Significant savings resulting from the reduction in airfares.
VI.	Additional Comments	<p>The study analyses the economic effects of airline deregulation on public intercity travel demand. No attention is paid to the price and demand effects that might have resulted from a reduction in fuel costs.</p> <p>The author provides an overview of conflicting views on the effects of deregulation on airfares.</p>

I.	Publication	Reynolds-Feighan, Aisling J. (1992), <i>The Effects of Deregulation on US Air Networks</i> , Berlin.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	The U.S. airline industry was becoming increasingly inefficient as a result of tight regulations and protection under the CAB. Deregulation was expected to make the industry more efficient, competitive and consumer-oriented.
V.	Results	<ul style="list-style-type: none"> <li>- Traffic levels increased dramatically after 1978; however, the number of airlines in the national airway system declined.</li> <li>- Dominant air carriers expanded their networks through internal growth or mergers/take-overs. The networks were built on a small number of airline hubs.</li> <li>- Empirical evidence suggests that airport and airline concentration levels were high long before deregulation owing to the operation of hub-and-spoke systems. Deregulation accelerated the process of concentration, but did not initiate it.</li> <li>- Output and productivity grew rapidly during the period 1976-80 due to changes in operating characteristics such as load factors, average stage length and available capacity.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	
VI.	Additional Comments	<p>The author considers the spatial restructuring of airline networks to be an important outcome of deregulation. He emphasizes the need for further research on the impact of deregulation on air traffic patterns.</p> <p>The study includes a review of existing literature on airline deregulation.</p>

I.	Publication	Reynolds-Feighan, Aisling J. (1997), The effect of US airline deregulation on airport traffic patterns, Dublin (Centre for Economic Research Working Paper Series).
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	No comment
V. (a)	Results Sector-specific	- While deregulation allowed airlines to determine their own routes, rates and service frequency, there were no mechanisms defining access rights to small airports.  - The level of concentration in traffic patterns at larger airports, which was already high, intensified further after deregulation. However, the hub-and-spoke system was not purely a post-deregulation phenomenon. The top 100 hubs accounted for 92% of total U.S. scheduled traffic in 1977 as compared to 96% in 1993.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	This study compares air traffic concentration levels before and after deregulation; it does not seek to explain the empirical pattern. The proposal to develop a mechanism determining access to small airports may warrant further policy attention.

I.	Publication	Williams, George (1994), <i>The Airline Industry and the Impact of Deregulation</i> , Aldershot.
II.	Sector	Transport: Aviation
III.	Policy Change	<i>Domestic deregulation</i> The U.S. Airline Deregulation Act of 1978 ended four decades of Civil Aeronautics Board (CAB) control of the domestic air passenger industry. Price and entry regulations were relaxed.
IV.	Rationale for Policy Reform	The U.S. airline industry was becoming increasingly inefficient as a result of tight regulations and protection under the CAB. Deregulation was aimed at making the industry more efficient, competitive and consumer-oriented. Small and medium-sized carriers were expected to compete successfully and airfares to fall due to improved operational efficiency.
V.	Results	<ul style="list-style-type: none"> <li>- Low-cost new entrants threatened the position of previously protected airlines which suffered from high operating costs and decentralised route systems.</li> <li>- Computer reservation system (CRS), previously a cost-saving device to process flight reservation data, became an important marketing tool after deregulation. Airlines paid travel agents commissions and prohibited them from using other companies' reservation systems.</li> <li>- Hub-and-spoke systems enabled the carriage of passengers with different origins or destinations on the same flight. The systems were in sharp contrast to the linear route structure typical of the period before deregulation; it led to 5-10% higher load factors on routes emerging from hubs.</li> <li>- Hub-and-spoke systems also reduced the degree of interdependence between airlines. Airlines operating such systems provided a level of service that other airlines were unable to match.</li> <li>- The combined effects of hub-and-spoke systems and marketing devices like CRS and frequent flier programmes contributed to increasing business concentration in the airline industry. In 1988, for instance, 86% of industry operating profits accrued to American, Delta, United and US Air, although they accounted for only 51% of total available seat kilometres.</li> </ul>
(a)	Sector-specific	
(b)	Economy-wide	
(c)	Consumer Welfare	The deregulated aviation industry offered travellers a significantly greater number of options in terms of carriers, routes and fares.
VI.	Additional Comments	The study includes a comparative overview of deregulation policies in Europe, the United States, Canada and Australia.

I.	Publication	Yarrow, George (1995), "Airline deregulation and privatization in the uk", is <i>On privatization and deregulation in the United Kingdom</i> , Tokyo (Discussion Papers No. 60, Economic Research Institute, Economic Planning Agency).
II.	Sector	Transport: Aviation
III.	Policy Change	<p><i>Deregulation</i> of the airline industry in the United Kingdom in the mid 1980s.</p> <ul style="list-style-type: none"> <li>- The major national carrier, British Airways (BA) went through a financial restructuring programme with the objective of eventual privatisation. The carrier was fully privatised in 1987.</li> <li>- The British government's "multi-airline policy" provided assistance to new airlines in order to encourage entry into the industry.</li> <li>- Fare pricing was liberalized in 1993.</li> </ul>
IV.	Rationale for Policy Reform	<p>British and European aviation was dominated by state-owned airlines operating in a highly protected market environment. In 1981, BA suffered a major financial crisis, which prompted financial management reform and restructuring. The reorganisation paved the ground for privatization, which was expected to improve BA's performance.</p>
V. (a)	Results Sector-specific	<ul style="list-style-type: none"> <li>- During the 1980s and the 1990s, the British and European airline industry became significantly more competitive, induced by the entry of several private operators.</li> <li>- Shortly after deregulation, the number of airlines operating on a particular route increased. In the longer run, however, the number of operating airlines fell again as unprofitable companies closed down. BA, which had controlled 60% of market share before deregulation, regained an even larger share (84.4%) in the 1990s after several smaller competitors exited the market. Virgin Atlantic, commanding a 10.8% share in 1992, has become BA's major domestic competitor.</li> <li>- Since the mid-80s, BA's average revenue fell steadily in real terms.</li> <li>- The pressure to reduce costs after privatisation pushed BA's wages down to levels significantly below comparable European airlines.</li> <li>- Productivity fell significantly during the pre-privatisation restructuring programme in the mid-1980s but accelerated again in response to higher competitive pressures associated with deregulation.</li> </ul>

		- Between 1975 and 1985, real unit costs were declining at a rate of 0.4% per annum compared to an average decline of 4.4% between 1985 and 1994. The author ascribes the first phase of cost reduction to restructuring and change in management of BA. Longer term cost reduction is attributed to output expansion through the realisation of economies of scale and the competitive pressures associated with deregulation, liberalization and changes in international market conditions.
(b)	Economy-wide	No comment
(c)	Consumer Welfare	Airfares on domestic scheduled and European routes fell steadily after deregulation.
VI.	Additional Comments	Financial restructuring and subsequent privatisation helped BA to meet the challenges of deregulation and liberalization. Consequently, prices and unit costs fell significantly and the airline was able to expand considerably.



## D. ROAD TRANSPORT

I.	Publication	Alexander, Donald L. (1992), "Motor carrier deregulation and highway safety: an empirical analysis", <i>Southern Economic Journal</i> , No.1
II.	Sector	Transport: Road
III.	Policy Change	<i>Domestic deregulation</i> The Motor Carrier Reform and Modernization Act (MCA) of 1980 marked the end of rate and entry regulation in the U.S. interstate trucking industry. Deregulation prompted an influx of new firms.
IV.	Rationale for Policy Reform	Before deregulation, rate bureaus acted like cartels, setting shipping rates at excessive levels.
V.	Results	
(a)	Sector-specific	<ul style="list-style-type: none"> <li>- The number of truckers with legal operating authority increased from 18,045 in 1980 to 36,948 in 1986.</li> <li>- Deregulation yielded lower prices, increased output and helped to improve resource allocation.</li> <li>- Contrary to general expectations, fatality and injury rates were lower in 1982 and 1987 than in 1977, despite the increase in truck traffic. The accident rate after deregulation, however, remained unchanged.</li> </ul>
(b)	Economy-wide	No comment
(c)	Consumer Welfare	No comment
VI.	Additional Comments	The paper attributes the reduction in fatalities, despite the increase in traffic congestion, to firm behaviour. Possibly owing to the decline in wages paid, firms had the financial resources to provide drivers with additional safety equipment and training.

I. Publication	Lawton-Smith, Helen (1995), "Deregulation and privatization in the UK freight, bus and coach industries", <i>On privatization and deregulation in the United Kingdom</i> , Tokyo (Discussion Papers No. 60, Economic Research Institute, Economic Planning Agency).
II. Sector	Transport: Road
III. Policy Change	<p><i>Privatization and deregulation</i> of the freight (trucking) industry in the United Kingdom since the late 1960s.</p> <ul style="list-style-type: none"> <li>- The freight industry was subjected to both United Kingdom (UK) as well as European Union (EU) regulations. The bus and coach transport industry, operating primarily in the domestic market, was not as affected by EU regulations as the freight industry.</li> <li>- Enforcement of the Treaty of Rome, which entitles individuals from any Member State to provide goods and services anywhere in the European Union, provided the major impetus to deregulation of international haulage in the EU.</li> <li>- Barriers to entry to the freight industry were first lowered in 1968, when restrictions on the number of vehicles that could carry freight were removed.</li> <li>- Large scale privatization of the freight industry began in 1982 with the privatisation of Britain's largest freight company, the National Freight Corporation (NFC).</li> </ul> <p><i>Privatisation and deregulation</i> of the coach and bus industry in the United Kingdom in the mid-80s.</p>
IV. Rationale for Policy Reform	Deregulation was expected to promote efficiency through enhanced competition.
V. Results (a) Sector-specific	<p><i>Freight Industry</i></p> <ul style="list-style-type: none"> <li>- Stiffening competition in general haulage prompted many operators to specialise their services.</li> <li>- A significant number of manufactures and retailers replaced their in-house operations with distribution companies offering storage, stock control and transport. Between 1979 and 1994, own account tonne-kilometres fell by 2% while public haulage tonne-kilometres rose by 64%. (Own account traffic consists of operators carrying goods in connection with their own business).</li> <li>- International road freight transport has grown rapidly since the 1960s. From 1993 to 1994, freight moved by heavy goods vehicles increased by 7%, reaching the highest annual rate ever recorded.</li> <li>- Environmental costs of freight transport were estimated at between £10 billion and £18 billion for 1994-95.</li> </ul>

	<p><i>Bus and Coach Industry:</i></p> <ul style="list-style-type: none"> <li>- Over the period 1985-86 to 1993-94, total passenger trips in the deregulated areas fell by 27% owing largely to an increase in fares. In turn, higher fares resulted to some extent from removal of previous subsidies.</li> <li>- Total bus kilometres increased by about 25% between 1985 and 1994, as minibus operations expanded substantially.</li> <li>- As a result of increased labour productivity, real operating costs per bus-kilometre fell sharply.</li> </ul>
(b) Economy-wide	No comment
(c) Consumer Welfare	<ul style="list-style-type: none"> <li>- Consumers benefited from improved quality and higher frequency of bus and coach services.</li> <li>- The frequency increase in bus and coach services and the growth in freight traffic, however, contributed to increasing congestion and environmental pollution.</li> </ul>
VI. Additional Comments	The paper argues that although deregulation of road transport in the UK enhanced the level of competition in the transport industry and improved the quality of service, it has exacerbated some environmental problems.



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